

Children's Newspaper

The Wonder Ship Without a Man On Board
See the New Number of My Magazine

The CHILDREN'S NEWSPAPER

AND CHILDREN'S PICTORIAL

*The Weekly Companion of the Best-loved Magazine in the World*Number 192- Week Ending
NOVEMBER 18, 1922

EDITED BY ARTHUR MEE

Postage: Penny Inland.
Halfpenny Abroad. Every Thursday 2d.

NEW PART OF THE C.N. BOOK OUT TODAY

ALONE ON A RUNAWAY TRAIN GREAT ACCIDENT SAVED

How a Sleeping Man Awoke
in the Nick of Time

FINE STORY FROM QUEENSLAND

One of the finest railway stories of prompt action preventing a terrible accident comes from North Queensland.

The town of Cairns was roused in the middle of the night by loud whistling signals summoning the breakdown gang of the railway to hurry to the scene of a railway accident, attend to the injured, and clear the line of wreckage. Doctors and the ambulance corps were assembled, and motor-cars collected.

News had come along the line that a runaway goods train was dashing uncontrolled down a long single line gradient up which a passenger train was toiling, and there was no means of preventing the impending crash. All that could be done was to reach the place as swiftly as possible and alleviate the suffering that could not be avoided. Excitement and suspense were intense.

The Rush Down an Incline

But the accident did not happen. The terrible position had been brought about by the goods train, consisting of empty timber trucks shunting at a station above the incline, being jerked from the level line at the station over the summit of the slope without being coupled to the engine.

The trucks began to run down the incline, and, gathering speed with every yard, they at once disappeared into the night. Nothing could be done, for there were no stations on the incline that could warn the passenger train.

But by a remarkable chance a railway servant on leave, named McGrath, was asleep in the van attached to the wildly careering trucks. The pace reached soon awakened the sleeping man, who at once realised that he was alone on runaway wagons that presently would meet the up-coming passenger train. The van brake would not hold, and could scarcely check the rush.

Screwing Down the Brakes

McGrath, however, was a fearless and resourceful man. Creeping from the van, he passed along to the nearest truck, reached and screwed down its brake, and then the next, and the next truck, till the combined brake-power brought the runaway to a standstill while it was yet on the incline.

Then, rushing back rapidly to the van, he secured detonators and red flares, and blocked the line against the passenger train just in time.

When the passenger train came up, stopped, and began to find out why it was held up, the plucky McGrath was discovered in a state of collapse. His strength had only served him long enough to save the train.

Beating Time for Parliament



Parliaments come and Parliaments go, but Big Ben sees them in and sees them out, beating time for all. When the House sits at night a light burns high up in the tower

A VERY QUEER TALE

THE OLD MAN WHO DID
NOT LIVE IN A SHOE

Curious Freak Fossil That
Puzzled the Scientists

THE COBBLER OF TRIASSIC TIMES

Some time ago what seemed to be a fossil shoe was discovered in Nevada, embedded in rock of the Triassic Period, a hundred million years before the supposed first appearance of man.

The fossil almost exactly resembles the leather sole of a hand-made shoe. The idea that man lived in these days is so contrary to all the other findings of geology that men of science might have been forgiven if they had refused even to consider the matter, and the C.N. made no mention of it.

But the famous Rockefeller Institute has been studying the fossil, and has taken micro-photographs which seem to show distinct marks of twisted thread and stitches, and might even be held to confirm the idea that it is a shoe worn by a man who lived in Triassic times.

What Cannot Be Believed

Nevertheless, it is pretty certain that no scientific man will accept any theory of the shoe's human origin. The most ancient relics of men found, so far, have been skulls, and the oldest skull known is believed to belong to a man who lived about 500,000 years ago.

This Triassic shoe—if a shoe—must have been stitched and worn by a man who lived more than a hundred million years ago. Is it credible that during all the periods covered by these millions of years the only fossil trace of man should be one shoe?

In the Triassic Period there were no birds and only a few small mammals; and the dipodocus and archaeopteryx were still unborn. Are we to believe that man was almost the first mammal, and that he preceded even the archaeopteryx? Are we to believe, too, that he appeared before the apes and monkeys? For there are no fossil remains of apes and monkeys for millions of years after that time.

Nature's Freaks

If man lived before apes and monkeys, then these are his descendants, and evolution has been going the wrong way. In the Triassic rocks, moreover, we have plenty of imprints of the feet of animals, but no prints of the feet of men. We have not even flint tools and weapons, far less needles for sewing leather shoes.

In spite of the micro-photographs of the Rockefeller Institute, therefore, we find it impossible to believe that the fossil is a shoe. Nature has her freaks; and it is easier to believe that this fossil is a strange freak of Nature than to believe that man lived a hundred million years ago, and that only now we have found a trace of him in a fossil shoe.

TERRIBLE FIGHT WITH A LEOPARD

HUNTER'S THRILLING
EXPERIENCE IN KENYA

The Animal That Had Quite
Enough of It

THE PERIL IN THE TREE

A hunter in the Nyeri district of Kenya, Mr. James Rattray, has had a thrilling adventure with a leopard.

The animal sprang upon him at close quarters, and a tremendous struggle between man and beast was the result, in which the man did not come off second best. The leopard was beaten, and the man escaped with his life, though almost as by a miracle.

Mr. Rattray was out trying to shoot a zebra, and in this he was successful; but when he went to the spot where the animal had fallen he found a leopard crouching on the ground in possession of the carcass.

What was he to do? Before he had a chance to decide the leopard, with a growl, came forward to the attack; and Mr. Rattray only just had time to raise his gun and fire three fruitless shots when the angry animal charged.

A Trial of Strength

In a moment it was upon him. His gun was useless, so, seizing the leopard by the throat with his bare hands, he tried to choke the life out of it. Rarely had such a struggle been seen. It was a trial of strength between a great cat and a powerful man.

As the fight progressed brute force told, and Mr. Rattray felt his strength gradually going. He struggled in desperation as long as he could, the leopard all the time trying to get its mouth forward to give its antagonist a bite.

Then the hunter, unable to continue the struggle, released his hold and waited for death. But here happened an amazing thing. Apparently the leopard also had had enough of it, and, on feeling the hunter's grip loosen, it turned and slunk off into the long grass.

Leopard's Last Struggle

Native helpers arrived and followed the leopard into the grass, where once again it turned to attack, but six shots rang out and the animal fell. It had fought its last fight. Mr. Rattray had been badly mauled, but he is now recovering rapidly.

The leopards of Kenya Colony have a bad reputation for ferocity, and if any one thinks a leopard is less dangerous than a tiger he had better go out to Kenya and judge for himself.

Some time ago Captain Douglas Pennant was hunting in Kenya when he wounded a leopard. It ran into cover, and the hunter followed. Suddenly the animal sprang upon him, apparently from a tree in which it must have taken refuge, and bore him to the ground. His position was perilous beyond description, and it seemed as if nothing could save his life.

A Narrow Escape

But fortunately a Somali gun-bearer who had followed him into the bush was a crack shot, and, firing, he blew out the leopard's brains almost at the same moment that it reached the ground.

The leopard had had time to make only one bite at the hunter, but that bite came within an ace of crushing his skull. As it was, Captain Douglas Pennant's jaw was broken, an ear was bitten off, and he was injured in other ways.

He spent some weeks in hospital in Nairobi, and then had to return to England for prolonged medical treatment, his bed at Nairobi being taken by another hunter who had been mauled by a leopard.

See World Map

AN OLD FRIEND COMES TO MIND

SHINING FIGURE IN THE
WORLD OF THE POOR

Little Book Which Tells the
Great Story of Sir John Kirk

A BRIGHT SPIRIT WE MUST CARRY ON

None of us is yet reconciled to the sad fact that we must write in the past tense of the golden-hearted friend of poor children, Sir John Kirk; but Time, which carries us all away, marches without haste or delay, and on the Editor's desk lies a new book by our friend Mr. David Williamson: "Sir John Kirk: The Life-Story of the Children's Friend." (Hodder & Stoughton. 3s. 6d.) It brings back an enrichment of memories which will never fade from the minds of those who knew Sir John.

A dozen volumes might be filled with the history of this man and his work for the poor, and of the harrowing conditions from which he redeemed so many helpless little ones.

A Lover of Books

But as a wide, swift summary of a career of tremendous activity, of mighty deeds for the most unmighty, of fine friendships with illustrious men and women and loving comradeships with the humble, Mr. Williamson's volume is perfect. It touches every aspect of a rich and beautiful life, tells us much that we did not know, and stimulates recollections of a charming and noble personality.

John Kirk was a poor tinman and brazier's son, orphaned early, and his only social advantage was the fatherly care of a clergyman who rescued him in delicate boyhood, took him to the South of France, gave him health and the elements of a sound education, and made him love books. From 16 the boy was the father of his own fortunes, and began his career in London on twelve shillings a week, out of which he managed to bank a weekly shilling.

Service for Others

Had he turned his great natural abilities to business he might have made a fortune, but his ideal from earliest youth was service for others in the poorest spheres of life. He was a man with a mission, and he followed the mission to his life's end, always, by his own choice, comparatively poor, yet boundlessly wealthy in his happiness in well-doing.

His life is bound up with the social story of the last half century of London. No man knew more than he of the horror of the life in the dreadful homes of poor children, and especially of little cripples. His record is written in letters of gold in the annals of that splendid institution the Shaftesbury Society and Ragged School Union.

Man Loved By All

All his thoughts, all his energies, all his world-wide travels, were consecrated to the welfare of the poor little ones sought out and saved by that society.

Everybody knew him and his work. Everybody loved him. On his golden wedding day congratulations reached him in a constant stream from royalties, from distinguished people throughout the Empire, and from multitudes of the poor at home.

In an age rendered a little hard and insensitive by excess of suffering it is refreshing to read this fine record which Mr. Williamson has set forth of a life which was all kindness and quick sympathy, selflessness, with many a flash of purest genius.

E. A. B.

NEWS FROM EVERYWHERE



Gathered by

Many swarms of bees from Germany have arrived in French towns as part of the war reparations.

An oil well in the United States has just been bored to a depth of 7579 feet, which is said to be a record.

The length of the railings round St. Paul's Cathedral is half a mile, and the railings and gates weigh 200 tons.

At least a million yards of ribbon were made into rosettes during the elections—a ribbon long enough to reach from London to Inverness.

The League of Nations costs a penny in every £40 an Englishman pays in taxes. War taxes, past and present, swallow £25 out of every £40.

New Comet Discovered

A new comet has been discovered among the stars of the Constellation Cygnus, but it cannot be seen without a good telescope.

The Two Maids

When the British steamer Maid of Delos ran ashore at Chanak another British steamer, the Maid of Athens, went to her assistance.

Flowers in October

During an hour's nature walk the pupils of a Henley school found, in October, in a South Oxfordshire lane and one adjoining field 70 different flowers.

The Spirit of Motherhood

A little girl, carrying a doll, who was knocked down in Holborn by a cyclist, showed no concern about herself, but immediately asked, "Where's my dolly?"

Fresh Flowers From Africa

A lovely bunch of flowers posted from the Cape by a reader of My Magazine, blooms on the Editor's desk as this paper goes to press, and seems likely to last another week.

A Safety Record

America's greatest railroad, the Pennsylvania system, is very proud of its safety record for last year: 152,000,000 passengers were carried without one being killed.

Radium for the Poor

The Province of Quebec has led the way in Canada by presenting £15,000 worth of radium to the University of Montreal for free treatment of poor cancer sufferers.

A Beech-nut Necklace

The Editorial Office of the C.N. has been delighted this week by the arrival of a beautiful necklace made of beech-nuts by Freda Harber, of Broadway-on-Teme, Worcester.

Pig Gives a Fire Alarm

The squeals of a pig gave warning of a fire on board the steamship Liguria, as the vessel passed the Scilly Isles. Several cabins in the officers' quarters were destroyed before it was extinguished.

Labour in Japan

A Japanese representative at the International Labour Conference, recently held at Geneva, stated that numberless young women worked 12, and even more than 13 hours a day in the Japanese silk industry.

What the Scouts Picked Up

A Californian automobile club offered a prize to Boy Scouts who picked up the greatest number of puncture-causing objects from the roads. More than 711,000 sharp objects were gathered altogether during the contest.

A Bullock Calls on its Solicitor

A bullock was being driven through the street at Coalville, Leicestershire, when it ran into a doorway, mounted thirty stairs, and entered a solicitor's office. After doing much damage it was pulled downstairs with a rope.

Alpine Accidents

During the last summer season accidents in Switzerland were unusually numerous, and 35 lives were lost. Seven people lost their lives when looking for edelweiss, the famous Alpine flower, and 14 accidents at least were due to imprudence or inexperience.

WHAT WILL HAPPEN IN TURKEY?

KEMAL AND THE SULTAN

Big Question Affecting 220
Million People

BREAK IN A LONG CHAIN OF TIME

By Our Political Correspondent

The changes that have been going on in the Government of Turkey are of great interest and importance. They are of interest because they call to mind more than twelve hundred years of history; and they are important because they affect more than 220 millions of people now living.

The great problem they raise is the link that binds together the country of Turkey and the 220 millions of Mohammedans who live all over the world.

The Sultan of Turkey has been recognised universally as the figurehead of the Mohammedan faith. He it is who bears the sword by which the Mohammedan religion has spread itself over a large part of two continents. He has been the visible symbol of its unity, as a faith if not as an empire. He has been the Khalif, or successor of Mohammed, as well as the Sultan of Turkey.

A Country Divided

Because of this it has been difficult for the Great Powers to deal with Turkey as a country, for any action they might take has resounded throughout the Mohammedan world. It has been watched with anxiety, if not suspicion, by the Mohammedan races of India, of Egypt, of Arabia, and by the many millions in Africa who are now under the rule of France.

But Turkey itself has been divided. The Sultan, seated in Constantinople, has had his own Government, which has been recognised by the Powers and treated as the chief corner-stone of the Moslem world, though its military authority has passed away.

A Difficult Problem

Across the Straits, in the wild and remote highlands of Asia Minor, Mustapha Kemal Pasha, with a strong Turkish army, has been the real sword-bearer, and the chief of a separate Government claiming to be truly national and representative; and Kemal has fought his way to a new military supremacy in Asia Minor which extends now into Europe as far northward as Adrianople.

Now Kemal has so far spread his authority over Constantinople, though the city is garrisoned by the troops of the Allied Powers, that he has been able to set aside the Sultan's Government and call for the resignation of the Sultan himself.

How far this change will affect the attitude of the whole Mohammedan world toward Turkey only time can reveal, but the separation of military power in Turkey from religious sentiment, if the breach should widen, may have a great effect on the Eastern world.

Snapping of a Link

Many millions of Mohammedans have thought of Turkey and its Sultan as a unity. They have welcomed Kemal's victories over the Greeks as religious victories widening the range of Mohammedan influence. But that influence has been centred in the Sultan whom Kemal has deposed.

It seems as if a link in Mohammedan unity may be snapped, and a break be made in a long historical succession; but perhaps that change may be avoided by the selection of a new Sultan, more or less in the true Khalifate succession, who will be content to be a pawn moved on the chessboard of politics by the hand of Kemal, the leader of the military party.

GUTTERSNIPE SCHOOL

MAKING LIFE WORTH WHILE

Fruitful Experiment in a Terrible District of Mexico

ARTURO OROPEZA AND HIS GOOD WORK.

By Our Correspondent in Mexico

In one of the vilest suburbs of Mexico City, known as the Colonia de la Bolsa, where the criminal element abounds, one of the most interesting children's schools of its kind has been established and maintained.

This school, named patriotically after one of the recent presidents of Mexico, is known as the school of Francisco I. Madero. The founder and director of the school, Arturo Oropeza, has achieved most satisfactory results.

After much fierce opposition he persuaded the vicious residents of that dismal neighbourhood to permit their unwashed, half-naked, and wholly illiterate children to go to the new school.

The Gospel of Work

Arturo Oropeza first of all impressed upon their young minds that honest, hard work was the only way to obtain anything in this world worth having.

He then proceeded to a large plot of ground close by and showed his little pupils how to dig, rake, make rows, and plant seeds. Each child was given a little patch of land, and had to work it up and raise some kind of a crop on it; this the children eagerly did.

So successful was this work that in a few months the school became self-supporting, and paid for itself out of the little crops which the youngsters raised.

Presently there was even a surplus of money in the school fund, and the children were able to buy clothes, shoes, and other little necessities, and also to take a little money home to their parents.

Not only did Mr. Oropeza show children by actual experiment all he knew about the cultivation of the soil, but in the brief intervals between farming he found time to teach them to read and to write, to keep themselves clean, and to cultivate good manners and to practise decent speech.

Children Run a Newspaper

As soon as they could read and write the children started a little newspaper of their own, which they publish under the name of The Child Farmer, and pay for out of the money they earn from the land.

The school has now 400 pupils, and the grounds it stands on are already too small for their requirements.

Fortunately the fame of this school one day reached the ears of the Mexican Government, which sent a representative to look it over and report on it.

His report was so favourable that the Mexican Government immediately granted the school an extensive tract of land for the purpose of continuing experimental and practical agriculture on a large scale with its ever-growing number of pupils. The Government also sent experts to instruct the children. Thus was started, in a modest way, the conversion of wild, neglected children of the slums into sturdy, capable, and honest citizens.

A DUCK'S EGGS

Fine British Record

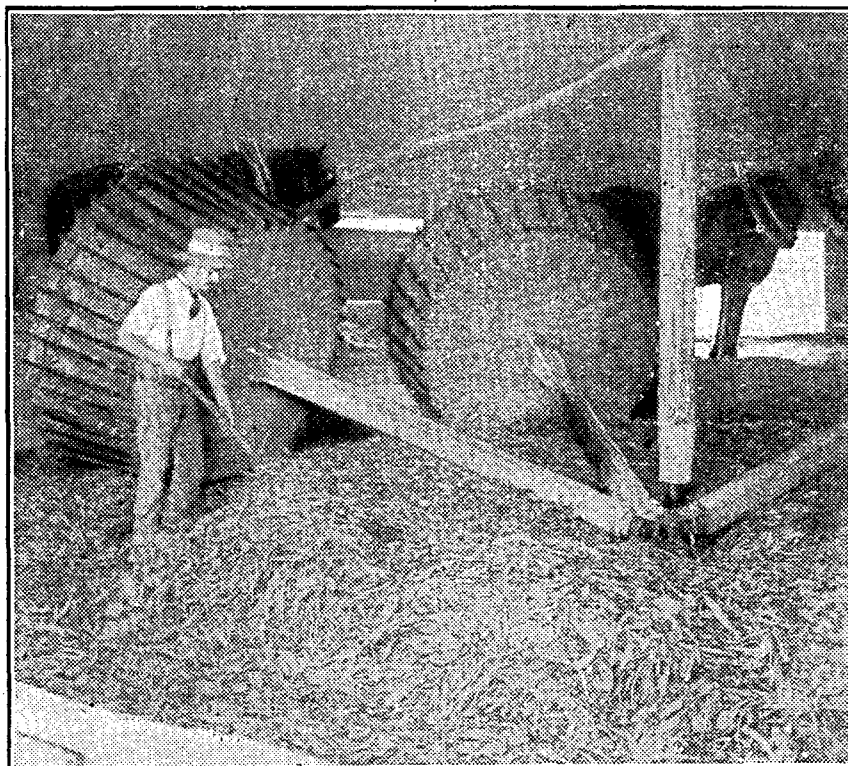
A duck at the Great Eastern Railway Company's farm at Bentley, Suffolk, has established a new British record by laying 350 eggs in a year.

That seems a pretty good performance, but the world's record is held by a duck which actually laid 363 eggs in 365 days. A pity she did not lay two more!

BRITONS PREPARE THEIR WOAD



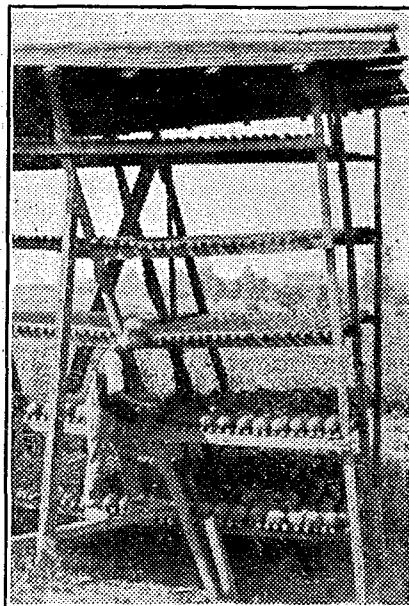
Gathering the woad by hand



The freshly-gathered leaves are ground up



After grinding, the woad-pulp is kneaded into balls



The balls are dried, and are then ground up again for use

The ancient Britons used to dye their bodies with woad, and Britons still grow and use woad for dyeing—not their bodies, but their clothes. Woad is now used in conjunction with other dyes, and helps to make these fast. Here we see the woad being prepared in the Eastern Counties

THE BELL CARAVAN

Strange Procession Arrives in Warsaw

REJOICING IN SLAV VILLAGES

One of the strangest caravans ever seen has made its way from Russia into Poland.

It consisted of 20 large wagons containing 1370 church bells, all of which had been taken from Poland by the Russian troops during the wars of the last few years and were now returned to their former owners by order of the Russian Government.

Their arrival in Warsaw was the occasion of great rejoicing, for many of the bells were of considerable historic interest, dating back to the fifteenth, sixteenth, and seventeenth centuries, and it is a matter of much satisfaction that, in view of all the destruction that has occurred in recent years, these historic treasures should have escaped the munition factory and not been melted down for guns.

Instead of booming out death and destruction, as they might have done, they will once again be able to ring out merry peals and, let us hope, ring in a new era of peace and good will.

The Slavonic peoples, among whom both the Poles and the Russians are included, are the greatest bell-lovers in the world. Small village churches all over Russia and Poland possess bells that would do honour to an English cathedral. As a country of bells, however, Russia easily ranks first, and some of the biggest bells in the world are to be found there.

The hanging of a bell in a town or village church has always been a great ceremony among the Slavs, and no doubt there will be scenes of great solemnity and rejoicing all over Poland when the 1370 returned bells are once again placed in position in their church towers.

See World Map

HAE-MO-GLOBIN

A New Theory About it

A doctor, writing in a grown-up paper, makes the new and interesting suggestion that perhaps the red colouring matter called haemoglobin, which is in the red blood cells, plays much the same part in the animal body as the green colouring matter called chlorophyll plays in the green plant.

The chlorophyll of the green plant, as is well known, protects the plant from too strong sunlight, and works together with certain solar rays in forming starch in the leaf-cells, and the doctor suggests that perhaps the haemoglobin of the blood, which in chemical composition is remarkably akin to chlorophyll, similarly protects the animal tissues from too strong sunlight and works with certain solar rays to form new chemical compounds in the blood.

If this should be so it would explain how it happens that sunlight is just as useful as vitamins in preventing rickets, for it might be that the sunlight and haemoglobin together build up vitamins in the blood.

Of course the main function of the haemoglobin is to carry oxygen, but there is no reason why it should not perform several functions.

LIONS GO TO MARKET

Excitement in Tanganyika

It must be somewhat exciting to live in Dar-es-Salaam, the capital of Tanganyika, for lions have been making raids on the native market, finding it, no doubt, less fatiguing to get meat in that way than by hunting for it.

However, one lion has been trapped and shot and carried in triumph through the streets of the town, so perhaps in future the lions may wisely patronise another market.

WHO DID IT? ONLY A BLACK MAN

The Splendid Head of a
Splendid Negro School

IN THE NAME OF LINCOLN

A child fell in front of a motor in a New York street and was snatched from almost certain death by a big Negro, who risked his life in the act.

He was quietly moving away from the crowd that had gathered when he was asked by a relative of the child, "Who shall we say rescued her?" The reply was, "Oh, say a black man did it."

Further inquiry showed that he was Dr. Robert R. Moton, the President of a great Negro training institution in Alabama, U.S.A.

This institution, named Tuskegee, was founded by Booker T. Washington, the Negro who was born a slave and rose to be one of the greatest men in America. When Booker Washington died, a few years ago, Dr. Moton was appointed to succeed him.

The other day he might have been seen walking about the streets of London. As he passed people looked round to see him, for he stood a clear head above most folk, and his kind face was invariably wreathed in smiles.

Training Negroes to be Teachers

He was in this country on important business connected with Negroes and white people. At one meeting he said, "What the Negro asks for is to be treated as a man, to be given a man's chance of becoming the best of which he is capable and of playing his part in the making of a better world."

Tuskegee Institution is training Negroes to be worthy teachers and farmers, carpenters, and engineers, who will live side by side with white men in peace and goodwill, each helping the other toward a higher and more useful civilisation. Some of the men who have been trained by Dr. Moton are now doctors and bankers, editors, and ministers; many laid down their lives in the Great War fighting for the Allies.

The Children of Slaves

Today there are twelve million Negroes in the United States. They are the children and grandchildren of the slaves who were set free at the time of the American Civil War. No one did more for their liberation than Abraham Lincoln, and no one is more honoured by them than he. Some time ago, when the Lincoln Memorial was dedicated in Washington, Dr. Moton was asked to speak for the Negro people. These are some of his words:

"Twelve million black Americans share in the rejoicing of this hour. As yet no other name so warms the heart or stirs the depths of their gratitude as that of Abraham Lincoln. To him above all we owe the privilege of sharing as fellow citizens in the consecration of this spot and the dedication of this shrine."

With Charity for All

"In the name of Lincoln twelve million black Americans pledge to the nation their continued loyalty and their unreserved cooperation in every effort to realise in deeds the lofty principles established by his martyrdom. With malice toward none, with charity for all, with firmness in the right as God gives us to see the right, may we, one and all, black and white, North or South, strive on to finish the work he so nobly began; to make America an example for all the world of equal justice and equal opportunity for all."

All friends of humanity will echo the spirit of these noble words and wish well to Dr. Moton and his good work.

CAN WE HAVE BEES WITHOUT STINGS?

A Very Queer Report

LIKE BO-PEEP'S SHEEP THAT
LEFT THEIR TAILS BEHIND

According to an American newspaper a Scottish American named McArthur has succeeded in producing a breed of bees without stings.

He had seen horses and dogs stung to death, and fifteen years ago he began experimenting with queen bees in the hope of getting rid of the sting by a process of selection, and now he claims to have evolved a race of stingless bees.

This story is rather difficult to believe; it is like a story of sheep that come home and leave their tails behind them.

No doubt bees may be changed in many ways by selection, but the stings are not to be easily removed. Originally the sting was not a weapon of war, but an instrument for laying and depositing eggs. On the other hand, it has not much value now either for egg-laying purposes or for warfare, and Nature is wise enough to allow useless organs to degenerate. Already there is a species of bee in the tropics, the *Trigona*, whose sting has degenerated and is useless for stinging.

So that, though the story of the stingless bee is rather difficult to believe, it must not be entirely discredited.

Queen of Rumania and the Great C.N. Book

The Queen of Rumania, following the example of Princess Mary, has ordered The Children's Encyclopedia to be sent to her each fortnight. The order comes with the following letter.

The Palace, Bucharest,

Oct. 21, 1922

Arthur Mee,

Dear Sir, Her Majesty commands me to thank you for your letter, and to say how very interested she is in your work, which is indeed invaluable to the real education of the minds of children of all ages.

Her Majesty thanks you for the copy you are so kindly sending, and wishes to order the whole production for H.R.H. Princess Ileana of Rumania, her youngest daughter, who is now nearly fourteen years old. Please have the copies sent to her direct as they appear.

I am, yours truly,

IDA MARKS

NORTH AND SOUTH MEET AT A ZOO

Newcomers at Bristol

The Great White North and the Great White South have recently met in the Clifton and Bristol Zoological Gardens.

A magnificent Polar bear has become the neighbour of some rather lonely-looking little penguins from Antarctica.

The ponds end of the zoo is a lively place with the splashing and diving of these water-loving creatures, for the seals also have great fun in an adjoining enclosure.

Recent arrivals include two beautiful lion cubs, Richard Coeur de Lion and Queen Mab; and a pair of Abyssinian lions, which are both darker and smaller than their neighbours.

The feathered creatures have had many additions of late, the most notable being the flamingoes, which make charming pink-and-white reflections in a shallow pond; and some crested cranes, which have a headdress rather resembling a small sheaf of corn sticking out of the back of their black "velvet" caps.

They dance like dervishes when excited, and their cry, which occurs with clock-like regularity every half hour, is something between the noise of a steam-saw and a donkey's bray.

THE CHOCOLATE UNCLE

The Little Brown Bars in
Vienna

STORY OF A GOOD MAN GONE

That good man George Cadbury of Birmingham, who has recently died, left many who were grateful to him.

But among them there must have been in his heart a special place for the poor children of Vienna who called him the Chocolate Uncle. This is how it came about.

In the hard times through which the children of Austria have passed, and are still passing, there were thousands of them left to themselves in the streets. Some Swedish friends sent money to open a cocoa-room for the poorest children. There the children were given a cup of cocoa and a roll and some books to read.

Now, the time came when provisions ran short, and it looked as if the rooms would have to be closed. But the children asked that they should be allowed to come for the sake of the books, even if there were nothing to eat.

It was then that George Cadbury came to the rescue. He heard of the need and sent three tons of chocolate. When the little brown bars were distributed among the visitors for the first time, several of the smallest children asked, in surprise, "What is this thing? Can you eat it?" They had never tasted chocolate before!

But they did not take long to discover how good it was, and to the giver, the generous Englishman, they gave the name of Chocolate Uncle.

It was like George Cadbury to think of the little children of Vienna in their hunger and cold.

WIRELESS AND SHIPS

The Case of the Egypt

In our issue of October 7 we referred to the use of wireless telegraphy in connection with the Egypt disaster, and on the strength of a report published by the Association of Wireless Telegraphists said that no ship heard the call of the Egypt direct. What the Association said was that no "wireless watcher," so far as their evidence went, picked up the Egypt's call.

Since our paragraph was written evidence has been given before the Wreck Commissioner that 15 ships received the call direct from the Egypt.

In our reference to the disaster we were not criticising wireless as a means of communication. No paper has appreciated it more than the C.N. The question was whether its messages were received, as they should be, by fully qualified operators.

It is now clear that the messages sent out were widely heard, and that there was no failure in the system as a system; but it is also clear, as the C.N. has more than once pointed out, that to give the system a fair chance and the public the greatest safety possible, there should be a qualified operator always on duty on every ship.

To wireless itself unreserved gratitude is due from all the travelling world, but it is necessary that greater care should be shown by ships to make wireless effective.

WHAT A WORLD!

The Things That Happen

What a world it is! A snake has come to London in a crate of bananas and is now fast asleep (perhaps) at the Zoo; a bull has charged into a motor-car in a country lane in Hertfordshire; and a golf ball has lodged in the ear of a donkey as it stood grazing.

THE RAT IN THE LOAF

GREEDINESS ITS OWN
PUNISHMENT

A Story and a Lesson for All
Who Want too Much

SNAKE IN THE SACK

By Our Natural Historian

It is never easy to find where instinct ends and reason begins, but a rat in dying not long ago seems clearly to mark the division.

The animal took possession of a hard, crusty loaf in a Stepney stable, tunnelled neatly into it, and hid in security while feasting. That was clever, and in keeping with a rat's reputation for cunning.

But it had not the sense to know that enough is as good as a feast. The greedy rat ate so much that its swollen body made escape from the hollowed loaf impossible. There in the morning it was found, its body wedged in the interior of the loaf, its foolish head poking through the hole in the crust by which it had entered. Its end was sudden.

The Monkey's Handful

Instinct prompted the clever device of concealment in the loaf, as it does when mice do a similar thing. Reason would have warned the robber not to take too much, so that, well-fed but not unwieldy, it might leave by the route that gave it admittance.

The same thing happens in various orders of life. Flies, eels, lobsters, are caught in traps from which they could easily escape if they had sense to go out by the way they came in. The wasp cannot be caught by such means, for she does find the outlet, but the intelligence of the monkey is unequal to the problem.

It is a common practice—so common that it has been photographed for the cinema—to place food in the husk of a coconut as a bait for wild monkeys. In goes a paw of the monkey. It grasps a fistful of food and tries to withdraw, but cannot.

The monkey retains its handful, and allows itself to be captured rather than relinquish its prize.

A Wise Old Snake

Yet the lowly toad, in order to reduce bulk and to escape, will discharge all the fluid stored in its body for the purpose of keeping its skin moist. And a snake will do an even wiser thing.

One that had eaten a frog was caught and placed in a sack. There was a hole in the sack, too small for the sallying forth of a snake with its dinner alive in its inside. But when the captor got home and opened the receptacle, a frog was in the sack but no snake.

The reptile had had the instinctive wisdom to disgorge froggie, and so, reduced in size, to slither through the hole in the sack and wriggle off.

Rats, cats, mice, and monkeys are far wiser than toads and snakes in their general attitude to life, but faced with new problems they are confounded because, in the absence of thought, automatic functions fail them.

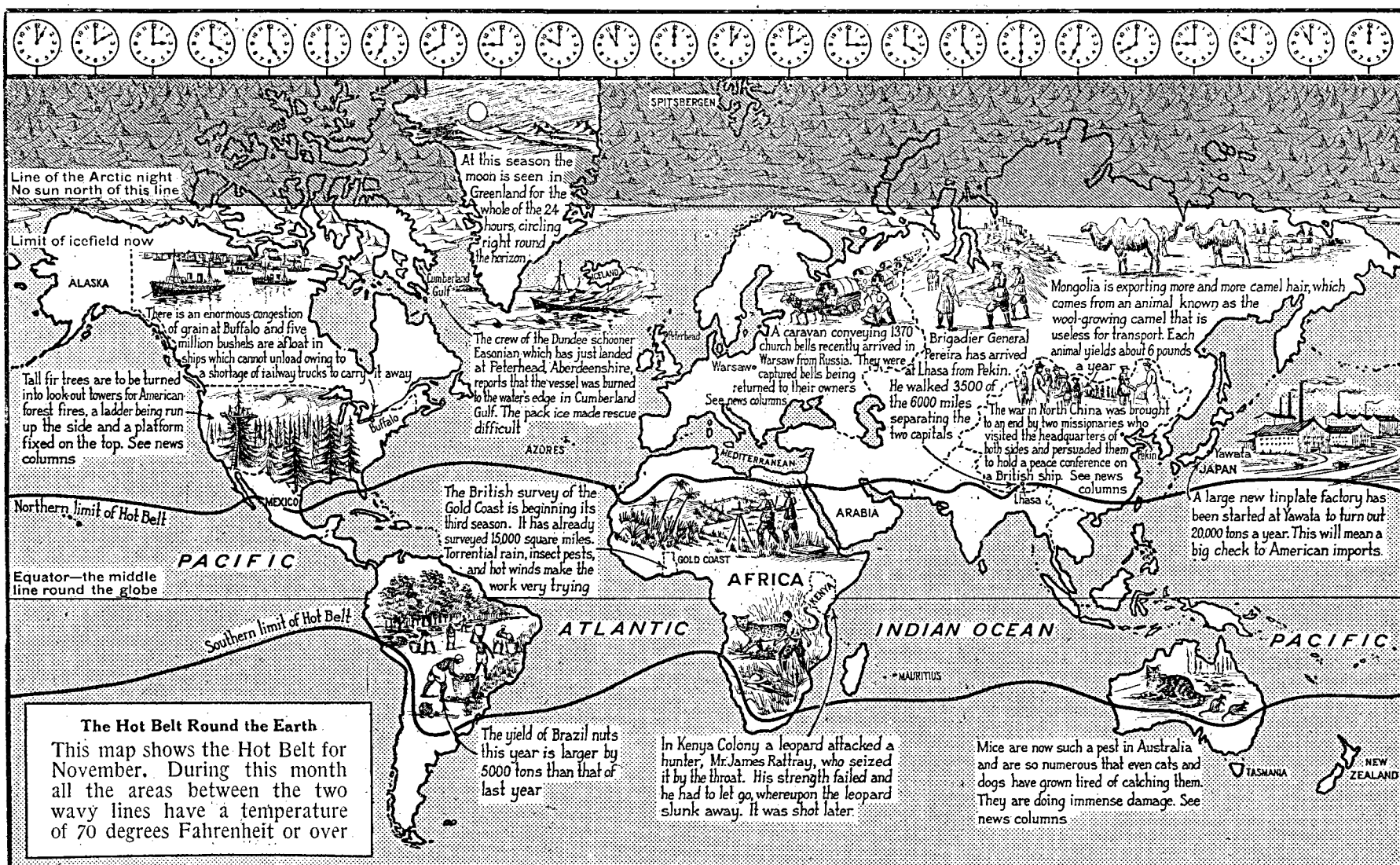
IS THE GULF STREAM'S WARMTH A MYTH?

Its Relation to Europe's Climate

For many years we have all been taught that Western Europe owes the comparative mildness of its winter climate to the Gulf Stream and the warm vapours accompanying that Stream across the Atlantic.

But now the French scientist M. Le Davois, who has been studying the matter for twenty years, declares that the Gulf Stream does not come far enough to influence the climate of Europe. He maintains that the warm currents of water that mitigate the climate of Western Europe really came from the tropics, and are due to northerly currents of warm water caused by the heating and expansion of equatorial waters under the tropical sun.

PICTURE-NEWS & TIME MAP SHOWING THE HOT BELT ROUND THE WORLD



THE COW WITH THE CRUMPLED HORN

And a Mind That Worked Things Out

A TRUE TALE OF TWO FIELDS

We have often heard of the Cow with the Crumpled Horn which was milked by the Maiden all forlorn, but this is not that kind of cow at all. True, it had a crumpled horn; but that is its only resemblance.

Many of the fields in the East Riding of Yorkshire are divided by dykes, but here and there are gates, which are so constructed that they swing both ways and always shut themselves. If a careless person passes through and does not close the gate it closes itself.

In one of these fields a farmer turned a herd of cows to graze each day, and one cow was easily distinguished from its companions because it had crumpled horns. After they had been turned into the field for several days it was discovered that the cow with the crumpled horns was going through into the adjoining field. Every evening, when they were taken in to be milked, this cow was in the next field.

A few days later it was discovered that the entire herd was in the next field. Then, quite by accident, it was noticed that the cow with the crumpled horns had learned how to open the gate, and, getting tired of being alone each day, went through herself, held the gate open with her body until the others had passed through, and then walked away, leaving the gate to swing to and latch itself.

Pronunciations in This Paper

Bucharest	Boo-ka-rest
Dar-es-Salaam	Dar-ess-sah-lahm
Hakluyt	Hak-loot
Madero	Mah-day-ro
Schenectady	Ske-nek-tah-de
Tuskegee	Tuss-kee-gee
Xenophanes	Zen-of-an-eez

OUTBREAK OF SMALLPOX

Vaccination Can Control the Disease

By Our Medical Correspondent

Thirty-nine cases of smallpox at Poplar! That is a small epidemic, yet the public feel little alarm.

But 130 years ago, before Dr. Jenner introduced vaccination, such an outbreak would have been a very serious matter, for the disease would have attacked millions, and would have deformed or blinded or killed thousands. In London just before Dr. Jenner introduced vaccination the yearly death-rate from smallpox was 5000 per million. Today that would mean 35,000 deaths.

Though Dr. Jenner deserves the credit of having introduced vaccination, he was not the first to perform the operation. The idea had long been prevalent that people who had suffered from cowpox were immune from smallpox; and a few years before Jenner made his experiments a farmer of Dorset, named Benjamin Jesty, had vaccinated his wife and two sons with vaccine from his cows.

Today vaccination is practised over the whole civilised world, and there can be little doubt that by vaccination the present epidemic can be checked.

A TRAMWAY COMPANY WITH A HEART

Giving the Children a Good Time

The tramway officials of Baltimore have done a great thing for the children. At each of the city's big parks they send out a real tramcar every fine afternoon for the children to play in. It is in every way a regular model of an electric car, but the current is shut off and the wheels blocked.

As can be imagined, the boys and girls have a great time playing with the bells, the fare-collecting apparatus, and so on, as they take the tram on a hundred imaginary trips.

RHODESIA DECIDES FOR HOME RULE

Result of the Referendum

The inhabitants of the Territory of Rhodesia have voted on the question whether they shall have what they call Responsible Government—that is, their own Home Rule—or shall make Rhodesia a Province of the Union of South Africa.

By 8774 votes to 5989 they have decided to remain a separate State in the British Empire.

The reason for the vote is a wish for more direct association with Great Britain than would be possible if the State were absorbed into the Union. Under Responsible Government, for example, English would remain the language of the State, but inside the Union the South African form of the Dutch language would have exactly equal rights with English.

One advantage of joining the Union would have been that Rhodesia as a Province would have strengthened the Government of General Smuts, whose influence is strong in upholding the British associations with all South Africa.

MICE BY THE MILLION

An Australian Plague

In Riverina, a district in New South Wales, mice are a plague, and there are not enough birds to keep them in check.

A Sydney man who returned after a month's stay in the district, says that mice are so plentiful and troublesome that cats will not touch them, and even dogs tire of killing them. Every scrap of food has to be kept in tins. Any box left out at night with a little grain in it would have 50 to 100 mice in it within an hour, and it is a frequent practice to slip a lid over a box and kill the little rodents wholesale in the morning.

A tired man who slept by the wayside always fell a victim to the mice, who would eat the boots off his feet, and bite his toes, ears, and hair. See World Map

THE POWER OF ROBBIE BURNS

How He Immortalised an Earl REVIVING A FRIEND'S FAME AFTER 130 YEARS

Robert Burns, the national poet of Bonnie Scotland, once wrote of a friend, "My best friend, my dearest benefactor; the man to whom I owe all that I have."

Of course, it was not true, though Burns felt it to be true. It now appears that his friend owes more to him than Burns ever owed to his friend. He owes to him rescue from oblivion and a revival of his name after 131 years.

The friend was the Earl of Glencairn, who befriended Burns when he needed it badly. Then, coming home from a voyage abroad, the earl died while approaching England and was buried at Falmouth in a nameless grave.

But Robbie Burns commemorated him in verse; and anything that Burns wrote seriously lives on in the thoughts of men. So at last a tablet has been placed in the Falmouth church where the Scottish earl has so long lain neglected, and on it is the poet's heart-felt verse.

The bridegroom may forget the bride
Was made his wedded wife yestreen;
The monarch may forget the crown
That on his head an hour has been;
The mother may forget the child
That smiles sae sweetly on her knee;
But I'll remember thee, Glencairn,
And a' that thou has done for me!

And the memory of Burns has been strong enough to force the world to remember with him his helpful friend.

FIRE IN THE FLOODS
Remarkable Scene in the Bush

An extraordinary incident occurred at Brigalows Station, near Warren, New South Wales, where men standing knee-deep in water had to fight a bush fire which swept through the reeds while the ground was covered with flood waters.

Three thousand acres of herbage, together with much fencing, were destroyed.

CHILDREN'S NEWSPAPER

NOVEMBER 18 1922

The Round Table of Goodwill

SOLID furniture is always the best; and we like the big Round Table of true British oak. It rings true.

But the Round Table about which business men and manufacturers and labour leaders are talking nowadays is not made of wood, but of goodwill. And it is the best bit of furniture this country can have.

Ever since the end of the war there has been trouble between workers and employers. The employers thought the great boom in business which followed the Armistice would last; the workers thought the high wages of war-time would last.

But the bubble of the boom burst, and the two succeeding years have been very bad indeed for trade all over the world.

It has not been possible to do anything but cut wages down. All the promises of a new land fit for heroes have been broken. The disappointment concerning them has had much to do with strikes and disturbances and the great menace to social peace.

However, our leaders of business and our important labour champions are at last beginning to see that it is no use quarrelling any more about the reasons for wages and dividends being as low as they are. The only thing to do is to get together, and make the best of what we have.

That is the use of the Round Table. It is the little table of discussion, where the representatives of employers and employed can meet and talk about their grievances face to face. The present Speaker of the House of Commons, Mr. Whitley, devised a conciliation scheme, to which he gave his name, by which disputes in trade were referred to the arbitration of a special court. It was a great inspiration, full of promise.

Again and again the Whitley Councils, by their patience and energy and good advice, saved the country from useless quarrels; and day by day the principles for which they stand are being extended into small businesses as well as big ones. Orders for the Round Table are coming in rapidly, even from people who have not used that piece of furniture in the past. And these orders mean prosperity.

The Round Table is the hope of the nation. It represents the inmost heart of the nation, sound like the heart of oak, which feels that what is fair and straight and open is always the most practical and wise. At the end of quarrelsome strife always comes a time when agreement must be reached. Why can it not be reached without the strife? It can be—always—round the Table of Goodwill.



THE EDITOR'S TABLE

Fleetway House, Farringdon Street, London
above the hidden waters of the ancient River
Fleet, the cradle of the Journalism of the world



The Middle Word

MR. LLOYD GEORGE, looking through his dictionary, has discovered that the word Reaction is followed very soon by Revolution.

But our good friend Sir George Toulmin has been looking a little closer, and he finds that the word Reform comes *between the two*.

Clearly there are lessons to be learned from dictionaries if those who rule are wise enough to read.

Wireless Politics

THE idea of broadspreading news and music is immensely attractive; but another possibility has been suddenly sprung on the world. What about broadspreading what people do not wish to hear—things that will do nobody any good and may give annoyance or cause harm?

Before the municipal elections in London an appeal was sent forth broadcast that everybody should vote for one particular Party; this was a deplorable abuse of wireless most people will think.

The possibility of polluting space all round us by sending forth annoying messages, forcing them on the attention of all "listeners in," is too serious to be overlooked. The introduction of politics into wireless broadcasting was explained as a mistake, and is, we see, not to be allowed again; but it shows the need for oversight and judgment at the wireless G.H.Q., and the fact that it occurred proves the need for safeguards against the indiscriminate outpouring of things mischievous or in bad taste.

Caught

WHO says children are slacker and less observant than their fathers? Anyhow, they are sharp enough to keep a helpful watch on an editor. Here is an interesting London specimen who shall tell his tale in his own words.

My Daddy has bought your Encyclopedia for me and is going to get them all bound when complete.

I greatly enjoy reading it.

Your opening, To Boys and Girls Everywhere, says "a big book must have a big name, but the name is the biggest word in the book."

May I point out that Constantinople, on page 76, has two letters more than Encyclopedia?

I showed it to Mummy, who was very pleased that I should notice this, and she said "Write to Mr. Mee about it."

You don't mind, really, do you, Mr. Mee? But I am proud to have caught you, as I am only a little chap of ten. Good luck to your book. I may find some more mistakes. Your affectionate reader,

S. M.

Our love to our little man who finds out that an editor is human after all. We feel very humble to be caught, and on the very first page.

Down South

A QUARTER of a million three-months-old trout from Loch Leven are being put into some of the Cumberland lakes. Not only Scotsmen, but Scotch trout, seem unable to stay very long in their native land. We welcome them all to the little land down south.

Tip-Cat

NOT one man in a hundred is said to know a good book. Well, not one book in a hundred is worth knowing.

THE great election cry was "No quarter." No quarter-day would be far more popular.

HAPPY is the girl, according to a photographer, who has a good profile. But is it not a one-sided happiness?

THE electors were advised to put certain questions to candidates "as an acid test." Defeated candidates will, anyhow, have an acid drop.

A LADY asks: Do dreams mean anything? Usually that you are asleep.

IT takes a trained man to walk to Brighton. Yet if he trains how can he walk?

OVER twenty women candidates stood for the election. We have not heard that twenty gentlemen gave up their seats to them.

A CRITIC thinks there is no reason why an artist should be poor—except, of course, when he hasn't any money.

ALL men are born helpless, but some help less than others.

THE tongue of a chameleon is as long as its head and body; but it is not used to catch voters—only insects.

GIRLS who like needlework are advised to follow "a needle career." All other work is needless.

Pitiful Russia

WE are always hearing of some fresh instance of the terrible state of affairs in Russia, but now word comes of a waste that fairly staggers us.

Out of fourteen million animals killed in Russia last year only seven thousand hides were marketed, and the balance have largely been left to rot.

That is what Bolshevism has done for one of the richest countries in the whole world.

The Armistice Day Prayer

In remembrance of those who made the great sacrifice, O God, make us better men and women and give us peace in our time.

From Seven to Eleven

By Our Town Girl in the Country

"MIND you take the Yellow Bus," our hostess had said.

We did, and found the advice good. It was really a big, enclosed, glass-windowed, beautifully-sprung motor-car. There were seats for twelve people besides the driver, and a perch for the conductor—not that the conductor sat there often; the Yellow Bus was too popular, and he was a polite young man.

Of the two Yellow Buses, we liked one better than the other. It was not because of its intriguing mascot, a little man in yellow wool holding buttercups in his hands, but because of the mascot's owner, the driver. He was a chatty soul, and if you were lucky enough to get the conductor's perch next to him, you knew you would enjoy your journey. Besides, he would tell you when to hold on firmly to your seat while he turned a nasty corner.

The Swimming Bath

"What is that for?" I asked him one day, pointing to a half-built wall enclosing a flourishing cornfield.

"I don't know," he replied. "And I don't suppose they know themselves. They're queer folk in these parts. They built a swimming bath once in S——" (mentioning one of the seaside towns on his route), "and then they found, when it was finished, that they had no place to let the water out."

For a little while the conversation dropped, the driver having to negotiate the passing of one of the charabancs, followed closely by an impatient motor-cycle with an equally impatient two-seater on its heels. The road was ill-made, to begin with, and not improved by the surface of sticky tar thinly scattered over with gravel. The traffic was fairly continuous.

"Still, you get people from all over the country to deal with here," I continued, "and you are interested in people—or you seem to be."

Oranges and Nuts

"Yes, I am—sometimes. But when a solemn man came up to me this morning and asked if we took passengers, I had to tell him No; we only carry oranges and nuts!"

"That was a compliment to your handsome car," I laughed. "Aren't you proud of her?"

"I should be more proud of her if I saw a little less of her," he answered emphatically.

"But you don't have long hours on this road, I hope?"

"Just from seven in the morning till eleven at night," was the grim answer.

"But why?" I gasped.

"They can't seem to get the right kind of driver."

"And all the unemployed?"

"That's true," he replied. "But there are drivers and drivers, and this road needs the careful kind."

"Result: You do sixteen hours a day," said I.

"Yes," he grinned. "Complimentary, but wearing."

MISSIONARIES STOP A WAR TRIUMPH FOR MEN OF PEACE

How They Took Their Lives
in Their Hands

MISSION STATIONS BETTER THAN MILITARY POSTS

A splendid triumph has just been recorded for missionary effort and influence in China.

It has transpired that Mr. J. E. Platt of Philadelphia, a missionary at Mukden, and a Scottish medical missionary, Dr. W. A. Young, were the means of arranging an armistice, between the contending factions in North China, which eventually led to peace.

Four months ago the armies of Wu Pei Fu and Chang Tsi Liu faced one another, and there was every prospect of a bitter civil war being continued indefinitely, to the ruin of the country.

General Chang's son, who was on a visit to Mukden, realising how disastrous such a war must be to the people, went to Mr. Platt, who was an old friend of his, and asked him to use his influence in stopping the slaughter.

A Risky Journey

"There is nothing to be gained by further fighting," he said; and he begged the missionary to try to open negotiations with the other side.

With Dr. Young, who was brought into the consultation, Mr. Platt decided to make the attempt, and, unprotected, the two missionaries journeyed from Mukden to the scene of hostilities.

They managed to reach General Wu, who, being entrenched in what he considered a favourable position, refused to listen to any suggestions of peace. The missionaries went away, disappointed but not dispirited, and later they made a second journey to Wu's headquarters, this time travelling in a small junk over a stormy sea in the dead of night. The risk was now greater than before, for fighting had been resumed and they might be shot as spies.

However, once more they reached the general safely, and pleaded with him to consider the urgent need of peace. After a time General Wu seemed impressed, and at last he agreed to a parley, which was arranged for half-past two on a Sunday morning on a British cruiser.

The Will to Peace

It soon appeared that both sides, brought together in this happy way, willed peace; the negotiations were carried through successfully, and peace was declared.

It was a magnificent triumph for Christianity. The missionaries were the only mediators to whom both sides would listen, and the result of the intervention is having a profound effect in the province, for peace was due entirely to the work of these able and intrepid men.

This is by no means the first time that missionaries have been the instruments of peace to warlike peoples. The records of the mission-field are full of such instances, and it is not surprising that a British governor once declared that "the frontier would be better guarded by nine mission stations than by nine military posts." See *World Map*

A WIRELESS LIGHTHOUSE

A wireless "lighthouse" has been set up on the Island of Inchkeith, in the Firth of Forth. Wireless waves are concentrated by reflectors into a beam which can be sent 100 miles, giving ships their position in a fog.

MR. EDISON THINKS ALL THINGS POSSIBLE

A SHORT time ago Mr. Edison, the great inventor, paid a visit to the laboratories of the General Electric Company at Schenectady, New York, and after a round of the works made the optimistic remark that "all things are possible." He foresaw a happy future for mankind "provided spiritual keeps pace with material progress."

He also said that the vacuum tube held tremendous possibilities. Among other things shown him was a 100,000

candle-power lamp, which made his first lamp seem as feeble as a rushlight.

Even as these words are written comes the news that Mr. J. S. Payne, of Schenectady Laboratory, has just invented a marvellous million-watt vacuum tube which it is believed will completely solve the problem of the transmission of wireless speech across the Atlantic. The tube has an output of 40 amperes at 25,000 volts, and two tubes will do the work of machinery costing £225,000.

A CAR JUMPS OVER A HOUSE



This remarkable scene was witnessed the other day at Oakland, California, where a motor-car was sent jumping 25 feet over a house to show the strength of its springs and the excellence of its build. It landed quite safely

A STEEL TUBE A MILE LONG

EVER since man appeared on the Earth he has been engaged in an endless search for facts.

Under the Earth's surface, on its surface, in the air, and far away in the night sky, he has been searching for facts that may help him to understand better the wonderful place he lives in.

He has learned much by his search, but not a hundredth part of what he will learn. No trouble is too great for him if it will help him to understand mysteries that puzzle him. He will go thousands of miles and spend years if he can learn anything that will throw a light on what he does not know.

One instance of this passion to know more, and to know it truly, can be seen now in some of the work going on at the great Mount Wilson Observatory in California, where there is the biggest telescope and the clearest air in the world through which to watch the sky. One of the things that scientific men

are trying to discover there is whether light which travels the same way that the Earth rotates travels just the same, and as fast, as if flashed the opposite way, to meet the Earth's movement.

On this fact very important truths of science depend—truths too difficult to be explained here, but which are known as the Einstein theory, because they were put forward for discussion by Professor Einstein, of Berlin University. An experiment to test the passage of light with and against the Earth's rotation failed because of atmospheric influence, and so atmospheric influence must be shut out.

To do this a steel tube a foot wide and a mile long is to be constructed, and a vacuum created in it by the exclusion of air. Then, unaffected by the atmosphere, light will be projected through the tube, with and against the Earth's spin. Also the velocity of light will be recorded by a practical test.

THE FALLING MARK POPULATION FALLING WITH IT

How the Money Market Keeps
the Cradle Empty

SERIOUS QUESTION FOR GERMANY

By a Scientific Correspondent.

Peoples and nations who live outside Germany regard the fall in the value of the German mark as something chiefly affecting that little understood institution called the money market.

As the value of the mark, which before the war was the German shilling, continues to fall till it is worth only 20, 30, 50, to the English penny, people to whom the Germans owe money become more and more uneasy, for they do not want to be paid in these coins of dwindling value.

But many people in Germany are still more uneasy, for their savings in marks, or their investments in marks, become worth less every day.

Not Enough to Eat

Yet there are others, besides, affected by this fall of the German mark, and these are what Maeterlinck, the author of the *Blue Bird*, has called the "generations of the children yet unborn."

Because of the fall of the mark, not only are there many thousands of German children who will never grow up, but the population will not go on increasing at the same rate. In the terrible war which shook Europe, and in the famines and pestilences which have followed it, many thousands, nay millions, of babies died in Europe who should have lived. They died because there was not enough to eat.

But it always happens that the birth-rate falls heavily when people are afraid there will not be enough to eat, or, if their fears are not so acute as that, because the parents feel that it will be impossible to bring up a large and healthy family in decent comfort. Consequently in the 543 larger cities of Germany the population has fallen over a million in the last year.

Flocking to the Towns

When the war was over people began to flock to the large towns, which became fuller than ever, and now hold 26,000,000 of Germany's population, while at the same time the number of children born continued to go up, till it reached over 23 every year for every 1000 people. But then it began to fall, and it goes on falling as the mark falls in value and as prices consequently increase. If the fall goes on the huge rise in population which followed the war in Germany will end in a slump.

It is an odd thing that the fall of the mark has no influence on the death-rate

LIVING IN SWITZERLAND Is It Too Expensive?

The C.N. has received several letters criticising comments on the cost of living in Switzerland.

Our comments were based on other letters from visitors, but the argument of those who think Switzerland is not expensive is that people who complain probably made the mistake of going to the more expensive hotels, though they could have been well accommodated elsewhere at lower prices.

The falling off in the number of visitors is said to be caused partly by the general need for caution in spending and partly by the Swiss rate of exchange being unfavourable to the traveller.

A general survey of the letters we have received suggests that the cost of living in Switzerland has fallen substantially and that prices are no longer deterrent, provided care is taken in selecting quarters that are comfortable rather than luxurious.

GREAT CAGE OF STEEL PILLARS

THE MARCH OF CONCRETE

What Can be Done with a Wonderful Material

THE NEW PENSIONS OFFICE

Great savings in cost are being made in the erection of large buildings by the judicious use of steel and concrete.

Nothing better has been done in this way than the mighty building the Government has had to erect at Acton, in the west of London, to house the many clerks who are needed to distribute pensions to the over three million men, women, and children wholly or partly maintained as a result of the war.

The new pensions building is really a great cage of steel pillars, beams, and joists, faced with concrete blocks.

Cheaper Than Stone

The building is 538 feet long and 245 feet deep, and the cornice measures over 1500 feet. This cornice projects four feet, and it was found that by the use of concrete it could be made for one-tenth the cost of a stone cornice.

This is only one out of the many current instances that might be named of the value of concrete in big buildings. It can be utilised, not only for such work as has been described, but for bridges and other such structures; it has revolutionised foundation work, and removed the old trouble of the cracking of walls built on inferior footings.

In the heat of last summer a very large number of old houses gave way with the shrinking of clay under the walls. If the old houses had been built with modern foundations of concrete this would not have happened.

The basis of modern concrete is that wonderful material Portland cement.

Origin of a Name

Portland cement is manufactured from limestone, or chalk, and clay, and it owes its name to the fact that when a wall is plastered with it the wall resembles Portland stone.

Our own country is well favoured for cement manufacture, because of our extensive chalk districts, which furnish practically unlimited material.

Briefly the process consists in incorporating chalk and clay by grinding and burning the mass in a kiln. The hard clinker so produced is then ground to a very fine powder, which is the required cement. When this powder is mixed with water it rapidly dries into a very hard artificial stone.

Mixed with a certain proportion of sand Portland cement forms a mortar, or with gravel it forms concrete.

The usual composition of ordinary Portland cement concrete, as used in the foundations of a house, is six parts of clean gravel or broken stone (in pieces not larger than will pass through a one-and-a-half inch ring), with a mixture of sand to fill up the interstices, to one part of Portland cement. Such a mixture makes a splendid artificial rock.

Indestructible Buildings

Another extraordinarily valuable property of Portland cement is that it adheres to iron. This makes it possible to form what is called ferro-concrete, or iron concrete.

A skeleton of iron or steel is made to suit the form of a required object. Cement is then poured round this skeleton in a mould, and the result is a piece of artificial stone that is actually much stronger than any known real stone. It is, in fact, indestructible except by the use of high explosives.

The use of Portland cement in building work is little more than fifty years old, and the conception of ferro-concrete is quite recent. The progress already made is great, and there is little doubt that concrete is destined to revolutionise many important operations.

A TREMENDOUS EXPLOSION

Has Another Atom Been Broken Up?

MYSTERY OF HELIUM IN A TUBE

By a Scientific Correspondent

The most ambitious task science has ever set itself is to find a way to explode atoms and utilise their prodigious power.

But atoms are very strong and stable structures, and little success has been attained in exploding them; and the most that science so far has been able to boast is that Sir J. J. Thomson has succeeded in knocking chips of hydrogen off nitrogen and other atoms.

There is some reason, however, to hope that another success has been achieved and that the atom of the rare metal tungsten has been shattered into fragments. The two experimenters, Dr. Wendt and Dr. Irion, are naturally very guarded in their report, but there seems little doubt that they succeeded in smashing the tungsten atom.

They exploded tungsten wire at a temperature of 20,000 degrees Centigrade in a vacuum tube. After the explosion no solid residue was left, but the spectrum showed that helium not previously in the tube was present.

Now, tungsten is known to be built up of 46 atoms of helium, and the probability is that the helium had come out of the smashed tungsten atom. If the facts are what they seem this is the most terrific explosion man has ever produced.

WILLY AND HIS CAT

A True Yorkshire Story

Some years ago a little boy was staying with his aunt on a farm in Yorkshire, and one day she gave him a cat to take to some friends at another farm four miles away. Pussy was put into a basket with a lid and carried to the new address by the little boy.

On arriving at the farm the boy handed his charge to the farmer's wife and sat down to tea. Pussy was put down before a large saucer of milk, which she lapped up greedily. She then began to make a tour of inspection, and finally found her way into the fold yard, where several other cats were waiting to make her acquaintance.

When the boy had finished tea he set off home again, feeling quite satisfied that pussy would settle down.

As he entered his aunt's house she met him, and said:

"Well, Willy, how did you leave pussy?"

"Oh, quite happy, playing in the fold yard!" replied Willy.

"Well, just look here," replied his aunt; and there sat pussy, as large as life, carefully washing the dust from her beautiful coat!

LITTLE BROTHER OF THE LEAGUE OF NATIONS

International League of Youth

The International League of Youth may be called a little brother of the League of Nations. It was founded only last year in Copenhagen by a Dane called Hermod Lahung, and already includes young people of many nations.

The young people of the League have banded themselves together to uphold ideals of peace and brotherhood. Already they have had two conferences and have started a monthly paper in Paris called Young Europe.

Nothing can do more to foster a spirit of friendliness between nations, and nothing can do more to remove international misunderstandings, than such friendly intercourse between the young. In the hands of the young lies the future.

The young are the future statesmen, and editors, and sociologists of the world, and if they take large and generous views of international matters the future of the world is safe. We hope that the little brother of the League of Nations will grow up into a young giant.

THE HORSES IN THE STABLE

WHAT ARE THEY THINKING?

One of the letters in the C.N. postbag the other day was written in a stable high up in the Pyrenees.

"It is pouring with rain," says our correspondent, "and I have been obliged to shelter in a stable. Eight horses are looking at me all around; it is a very funny sensation. What is going on inside those quiet-looking heads? Do they think at all?"

We passed the query on to our Natural Historian, Mr. Bryant, who sends us these notes.

By Our Natural Historian

Yes; something like thought stirs in those great, quiet heads, but it is horse-thought, different from ours. Xenophanes, a wise old Greek philosopher, showed a profound understanding of the animal mind when he said that if oxen, lions, and horses had hands and fingers like ours, and sought to represent a god, they would paint gods as oxen, lions, and horses.

These eight horses would realise that a stranger was present. They would closely observe the visitor to see if she were timid or confident, gentle or fierce, for animals know infallibly whether we like, or fear, or dislike them.

They would perceive courage and friendship in this visitor, and then, at ease on that point, they would wonder what purpose the visit implied; food or exercise for them?

The Nibblers

Bottom the weaver, when bewitched into the guise of a donkey in "A Midsummer Night's Dream" laid down the first law of the horse-tribe reasoning when he confided to the adoring queen of the fairies that "good hay, sweet hay, hath no fellow." Therefore, that new hay should at once find its way to old mangers from little hands would seem the natural outcome of this visit.

But, no addition to the hay-rack arriving, we may suppose the gazing animals would think of the guest as they would think of a stranger of their own kind.

"Why not come over here and have your neck lovingly nibbled or else nibble ours?" Neck-nibbling is the master sign denoting goodwill and affection between horses.

"And why not show your spirit by exchanging joyful kicks with us?"

Animals Think They Own Us

Animal humour always takes that form: a mimic duel between mother and foal, a mock battle between members of a drove. The imagination of the brutes goes no deeper than a display of pretended strife.

The ability to stand still without rubbing a shoulder against a doorpost, or biting a foot or a limb, would suggest to the animals' minds the peace which accompanies absence of flies and make the horses wishful to share the serenity of the human guest.

Probably they would wonder to which horse the little creature belonged, for animals think they own us, as a child thinks it owns its parents. And they might dimly speculate as to whether her four-legged master gave her oats or meanly kept her on chaff and bran.

In any case, they would never wonder what was going on inside her head, for abstract thought is altogether beyond animal comprehension.

GOLD IN CANADA

Gold production in Ontario is reaching fabulous proportions. Five million pounds' worth of gold will be mined in Ontario in 1922, with most excellent prospects of a decided increase in 1923 and 1924. Hollinger, now the world's greatest gold mine, produces a million dollars' worth of gold a month.

IN ST. PATRICK'S STEPS

A BURIED MONASTERY COMES TO LIGHT

Ireland as the One Torch of Learning

HISTORY LIKE A FAIRY TALE

To many of us St. Patrick is only a legend, but history does right to give him a local habitation and a name. He was the greatest man ever associated with Ireland.

This fact comes to mind when we learn that a romantic find has been made by learned Irishmen on Mahee Island, in Strangford Lough, County Down. They have unearthed a wonderful old monastery that St. Patrick founded and regulated.

The foundations and walls, with a fairly full plan of the building, have been revealed, with carved stones bearing drawings like those found in caves and upon pieces of mammoth ivory, with inscriptions in old Irish, in the Viking tongue, and in an alphabet which scholars have not as yet succeeded in deciphering.

Educating the People

Nendrum was the name of the monastery, and its fame long survived the loss of the building. It was founded in the year 450, when St. Patrick was at the height of his power.

The good saint's life was as fine as anything in human story. He is supposed to have been born in Scotland; he is known to have been captured by pirates and sold into slavery in Ireland. Escaping to the Continent, he was a diligent scholar, and returned to lead captive the land where he himself had borne captivity.

He converted Ireland to Christianity and gave it the beginning of its history. He built hundreds of churches and monasteries, he ordained bishops and priests, he educated the peasants, and made their kings humble servants of God.

Ireland, distressful country today as of old, became the shining light of the world, the centre whence the greater part of Europe received its missionaries in an age when barbarism had overthrown the Roman Empire and swept down all that marvellous culture which Italy had handed on from Greece.

A Marvellous Past

In those disastrous days little Ireland alone upheld the torch of learning. She was the schoolmistress of Europe, the last refuge of scholarship in a continent sinking beneath the gloom of a night which was to last centuries.

This old monastery of Nendrum was one of St. Patrick's outposts, founded in the name of God and Christian teaching. Some of the parts discovered seem to go back to times before the great Patrick.

That is additionally interesting, for, if history can be credited, Ireland was visited, when the world was first being mapped and known, by Phoenicians and Greeks long before a Roman Eagle was borne by the legions of Caesar up the beaches of Britain.

Let us hope that the discovery may remind the unhappy island of her marvellous past, and recall her to ways of peace, goodwill, and good learning, as in the days made famous by the man who is her patron saint.

In the Auction Rooms

The following prices have lately been paid in the auction rooms for objects of interest.

Large panel of Brussels tapestry . . .	£420
A Louis XV inlaid cabinet . . .	£252
A Chippendale chest of drawers . . .	£173
A Kilmarnock edition of Burns . . .	£110
A first edition of Keats's poems . . .	£68
A rare Baghdad Occupation stamp . . .	£60
A rare 1644 Oxford penny . . .	£60
A 1643 Oxford pound-piece . . .	£26

THE WEEK IN HISTORY

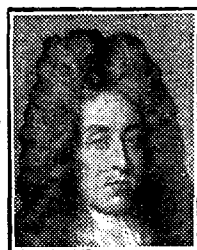
ENGLAND'S FOREMOST COMPOSER

Choir-boy who Became a Master of Melody

BURIED UNDER THE ABBEY ORGAN

Nov. 19. President Garfield born at Orange. 1831
20. Thomas Chatterton, poet, born at Bristol. 1752
21. Henry Purcell died at Westminster. 1695
22. Andreas Hofer born at St. Leonhard. 1767
23. Hakluyt, English chronicler, died in London. 1616
24. Voltaire born in Paris. 1694
25. Dr. Isaac Watts died at Theobalds, Herts. 1748

Henry Purcell, the greatest of English musical composers, died November 21, 1695, at the age of 37, and was buried beneath the organ in Westminster Abbey.



Henry Purcell

On a pillar near the grave was placed this inscription: "Here lies Henry Purcell, Esq., who left this Life and is gone to the Blessed Place where only his Harmony can be exceeded." Purcell was born into a musical family. His father, described by Pepys as Master of Music, was a gentleman, singer of the Chapel Royal and Master of the Choristers of the Abbey. Thomas Purcell, uncle of young Henry, was also a Gentleman of the Chapel Royal, Musician in Ordinary to King Charles II., and Master of the King's Band; and when Henry's father (also named Henry) died, the boy, then being six years old, was adopted and reared by his uncle Thomas, and presently became a chorister.

His life was passed in the study and practice of music. The life of the whole Purcell family centred in the Abbey, and both the father and the uncle of the great musician are buried in its cloisters.

A Boy Composer

Like so many of the great musicians of all lands, Purcell was a boy genius. From the first he had the best training that was then available in England, and he is said to have begun musical composition at the age of nine. At the age of twelve his work was in use, and during his teens he produced pieces that are still performed and greatly admired.

His teacher at this time was Dr. Blow, the Abbey organist, and the young musician had at the Abbey the position of copyist, which his father had filled. When Purcell was 22 years old, and the most popular composer of music in the country, Dr. Blow retired and his pupil took his place as organist, and retained it till his death.

For some years after his appointment as organist he devoted himself to the composing of anthems and other forms of sacred music; but he provided the incidental music for many plays by Dryden and others, including Shakespeare's dramas, which were now being recast and presented in mangled forms with musical accompaniments. In this way he composed settings of songs and musical interludes for the Midsummer Night's Dream, The Tempest, Macbeth, and other plays.

Lasting Fame for a Great Genius

The influence of Purcell's music spread widely, and his style became a model for foreign masters.

At that time music was not printed, circulated, and kept alive by constant use as it now is, and some of Purcell's work was lost sight of, though many of his songs were always known; but in recent years English musicians have become conscious afresh of the real greatness of this early master of melody and harmony, and now he is given a place in the front rank of composers.

Seventy anthems, half a dozen full sacred services, many hymn tunes, two hundred songs, and incidental music for fifty plays, made available by republication for modern use, will insure high and lasting fame for this great English Master who died at the early age of 37.

MUSEUM OF VOICES

A Library of Gramophones

RECORDS TO LAST 10,000 YEARS

The National Library in Berlin is making great progress with a museum of voices which it began to form some time ago.

All kinds of languages and dialects are to be represented on gramophone records, and a start has been made with English. Every known dialect of the English language is to be represented, and most of these have already been received. They are reproduced in all cases through the quotation of exactly the same verse in the Bible.

The records are made of copper, and an engraved portrait of the speaker, with his signature, is on each one. German scientific authorities estimate that these records will last at least ten thousand years.

Many famous men have had records made of their voices, and there will be records of the languages of the remotest islands of the South Seas, of the Negro dialects on the plantations of Georgia and other States of America, and of peoples everywhere.

Professor William Doegen, a phonetic expert, is in charge of the museum.

FIRE LOOK-OUTS

New Rule of Sight for Every Step

In the Deschutes National Forest, Oregon, a very curious watch tower, from which a look-out can be set for forest fires, has just been completed.

It consists of the trunk of a fir tree with a look-out platform on top, and access to this is gained by means of wooden ladders running from the ground to the summit.

The tower is 105 feet high, and it is claimed that every step in the ascent adds roughly a mile all round to the watcher's view.

This is a new type of watch tower of a very inexpensive character, and it is proposed to set up others in suitable positions. See World Map

HORSE THAT SAVED A HOST

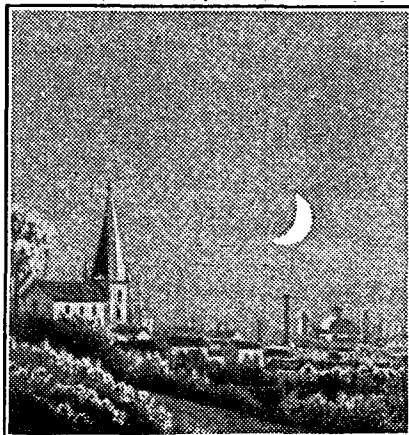
90,000 Lives in Five Years

An American bacteriologist who has been engaged in preparing anti-toxin for use in cases of diphtheria has been making some interesting calculations.

The anti-toxin is prepared from the blood serum of a horse, and during one year at least 90,000 diphtheria cases were treated with anti-toxin, provided by one horse. Of these cases only 8,000 died; whereas without anti-toxin 27,000, on the average, would have died. The anti-toxin from one horse, therefore, may be said to have saved 18,900 lives.

How many years a horse can supply anti-toxin we do not know, but at this rate a horse might save over 90,000 lives in five years—ninety times as many as Samson slew with the jawbone of its cousin the ass.

THE MOON NEXT WEEK



The Moon at 6.30 p.m. on November 23

C.N. QUESTION BOX

Little Puzzles in Natural History

Answered by Our Natural Historian

All questions must be asked on postcards, and not more than one question on each card. Name and address must always be given.

What Should a Jay be Fed On?

Snails, earthworms; insects, and fruit.

What do Turtle Doves Live On?

Insects, snails, the leaves of various plants, and seeds.

If a Hen Hatched out a Duck's Egg Would She be the Mother?

No; only the foster-mother. The mother is the bird that lays the eggs.

How Long Does a Queen Bee Live?

Professor Metchnikoff says two or three years, and she may reach a fifth year. Workers die in their first year.

Has the Moon any Axis?

An axis is merely the imaginary line on which a revolving body is supposed to turn, and as the moon revolves it has an axis just as the earth has.

Can a Limpet Move from Place to Place?

Mr. Philip Gosse says that, strange as it may seem, limpets wander from their usual place nightly to feed, and return to rest early in the morning.

Do Cats Eat Grass?

Both cats and dogs eat a blade or two of grass from time to time, this no doubt being a natural instinct which has the effect of keeping them healthy.

What Oat is Used for Making Weather-Spiders?

It is usually the animated, or fly, oat, a species grown in gardens as a curiosity. The awn is strongly twisted when dry, but untwists on absorbing moisture, hence its use as a weather indicator.

Why Have Pigs Drooping Ears?

It is only domesticated pigs that have these; and Darwin suggests they have come through disuse of the muscles owing to domestic animals, unlike wild creatures, being seldom alarmed and so not needing to hold up their ears.

Where Did the Tomato Come From?

It is a native of South America, and was first introduced into Britain in 1596. Originally grown here as an ornamental plant, it is only during the last forty years that the fruit has become popular.

Do Earwigs Hibernate?

Yes; they crawl into any suitable crevice or recess in the late autumn, and lie dormant through the winter. Then in the early part of the year they enter the soil and lay their eggs, and, unlike other insects, watch over them.

Has a Young Rattlesnake a Rattle?

The young rattlesnake's tail terminates in a button, but the hollow, horny, interlocked rings that form the rattle soon begin to grow. They are not formed with any regularity. Some years only one grows, while in other seasons several will form. An old rattlesnake may have twenty rings.

Is a Growing Aspidistra Injurious to Health in a Bedroom?

It is never wise to keep growing plants for long in a bedroom where people are lying, as in 24 hours they give off an average of from five to ten times their own volume of carbon dioxide. The aspidistra is less harmful than many plants, however, as it gives off only one half its own volume.

Newspaper Notes and Queries

What does Sebat mean? This is the eleventh month in the old Hebrew calendar, and corresponds more or less with February.

What does U.S.S. stand for? United States ship, although it sometimes means United States Senate.

What does Lex scripta mean? Statute law as distinct from Lex non scripta, or the common law.

What was the Day of Dupes? In French history, November 11, 1630, when a plot to remove Cardinal Richelieu from office was defeated.

NEXT WEEK'S METEOR DISPLAY

MILLIONS OF BODIES CROSS THE EARTH'S PATH

The Dust of Space that Falls Upon Our World

TELL-TALE STREAKS OF LIGHT

By Our Astronomical Correspondent

Next week offers a good opportunity for seeing a few of the meteors that annually fall victims to the great attractive force of our Earth.

These bodies, which a few months ago were hundreds of millions of miles away, may be seen to become part of our world and its atmosphere; and even their dust, after they have been consumed, may fall upon us, but, of course, in minute, imperceptible quantities.

From tomorrow, Saturday, the sky to the south-east and east, and quite high up to almost overhead, should be observed in order to see these so-called shooting stars.

Where the Meteors are Seen

Of course, they are not stars, for stars are great suns, and the meteors do not "shoot"; the bright streak that we see is merely the part of their course during which they are lit up by their own ignition previous to being burned away in their passage through our atmosphere.

The particular meteors that we are considering are known as the Andromedids, because they appear to come from Andromeda. This constellation may be easily found, the three bright stars, almost in a straight line, which trail off to the left from the upper left-hand corner of the Square of Pegasus constituting Andromeda's chief stars.

There are countless millions of Andromedid meteors, extending in a vast stream calculated to be from two to three million miles wide and about a thousand million miles long. The stream forms a great oval ring, one end of which is within the Earth's orbit and is between us and the Sun, while the other extends far beyond Jupiter.

Overtaking the Earth

Every year about this time the Earth crosses this meteor stream, and large numbers are captured and vanish in the streaks of light that we see. They are rushing through space at about 25 miles a second, approaching our Earth obliquely from the rear; therefore, as they, as it were, overtake our world, they appear to move slower than many other meteors, burn more slowly, and are reddish in tint.

Fortunately for us meteors are generally small bodies, most of them varying in size between marbles and grains of sand, with occasionally larger ones. Many of the smaller meteors can only be seen under more favourable conditions than we get in this country; but a few of the larger are always to be seen every year, while on favourable occasions, when we pass through a kind of nucleus in the meteoric stream, we have what is called a shower, and millions may enter our atmosphere in twenty-four hours.

A Problem of Heat

There are a great many streams of meteors which the Earth crosses at various parts of her orbit—over a hundred; and this gives us some idea of the enormous mass of meteoric matter, or bodies, encircling the Sun.

Indeed, it has been suggested that the energy and constant outpouring of his heat may in part be maintained by vast quantities of these meteoric bodies falling into him, though it is difficult to see how the supply can be equal to it.

About November 22 and 23, lower down in the sky toward the horizon in the east, some meteors may be seen of another stream. These are known as the Taurids, as they radiate from the constellation Taurus. About a dozen may be observed in the course of an evening after about 8 o'clock. G. F. M.

THE HOUSE OF SILENCE

A School Story
With a Mystery

Told by T. C. Bridges,
the C.N. Storyteller

CHAPTER 32

The Hiding-Place

RAY knew little of woods, and this wood was extraordinarily thick.

He was not twenty yards inside before he had lost his direction. He paused a moment and listened, and almost at once heard heavy foot-steps crashing through the undergrowth at some distance to his right. He thought, but could not be sure, that he heard other steps—much lighter ones—somewhere ahead. The heavy ones, at any rate, were those of the keeper.

Ray hurried on downhill and carefully kept his eyes on the ground, looking for the tracks of Jimmy's boots in the soft soil. He broke through a thick tangle of thorny blackberry bushes and suddenly found himself on a narrow path, and here the first thing he saw were the prints of Jimmy's boots.

He ran on more quickly, at the same time trying to go as quietly as possible; but the crashing of the heavy footfalls over to the right grew louder and nearer.

Quite suddenly the rough path came to an end, and beyond was a perfect tangle of hazel and thorns.

Ray's heart sank, for it was an awful place to get through, and he felt convinced the keeper would have him before he could pass it. He pulled up again, hesitating what to do, and every moment the keeper was coming nearer.

And just then Ray heard a sharp whistle from the thick growth to his left.

"Duck down. Get in under here," said a voice curtly.

Ray obeyed. There was nothing else to do. He found himself creeping on hands and knees down a sort of tunnel in the heavy brush. And it was Jimmy who was leading the way!

On and on they went, scratched by thorns, their knees blackened with mud, till Ray's guide led him into a little hollow, domed over by prickly gorse so thickly that it was nearly dark. Here Jimmy stopped.

"It's tremendously good of you," began Ray, in a whisper.

"Shut up!" retorted Jimmy harshly. "Do you want the keeper to hear us?"

Ray subsided, and sat hugging his knees and listening with beating heart to the big, nailed boots of the keeper crashing here and there.

The man came nearer and nearer.

"The young varmint!" they heard him mutter angrily. "I'll take me davy he isn't far off. Only wish I'd got Dash along. He'd soon ferret 'im out."

Ray heard him beating the brambles with his stick, and presently the fellow was so close that he could actually see his dark-brown gaiters through the brush only three or four yards away.

Ray gave up hope, but, copying Jimmy's example, he did not move or make a sound. But the gorse bush apparently looked impenetrable from above, for, to Ray's intense relief, the man turned away and pushed down the slope toward the nut bushes below.

Even then Jimmy did not stir, and it was not till the sound of the keeper's progress had almost died away that he made a movement. Then he turned to Ray.

"That's your way," he said, and pointed.

Ray gasped as if a bucket of cold water had been flung over him. But he pulled himself together and spoke.

"I—I thank you, Jimmy," he got out. "It was very good of you to show me where to hide."

Jimmy looked him in the face.

"I'd have done as much for any chap in the school," he answered; and his voice, like ice, rang in Ray's ears as he turned away and crept out of the wood.

He was one of the last home, but he did not care.

CHAPTER 33

The Broken Bridge

THERE came days of rain. Football was out of the question, for the playing-fields sopped like a wet sponge. Every day was the same—a cold, grey sky and steady downpour.

A few of the bolder spirits put on mackintoshes, and tramped the streaming roads. The Var, they said, was a fine sight, coming down a "banker."

As for Ray, the weather suited his mood. He seemed to have reached a stage when he did not care what happened.

One day Slogger kept him after lessons and talked to him seriously. He told him that he was flinging away his chances; but he spoke kindly, and Ray felt that he was asking for his confidence.

But by this time Ray could not have opened his heart to anyone. He was too miserable. The only effect was that he did make an effort to prepare his work better, and he managed to stay his descent toward the lowest bench, where Jimmy still sat. But he did not rise. Try as he might, his power of work seemed to have left him.

Always he watched Arden and Hogan. Inwardly he was convinced that they were at the bottom of the trouble, but as for getting any proof, that grew more hopeless day by day.

At last came a fine morning, and Searle gave orders for the dormitory to go out after dinner for a training run.

Just before dinner Ray went up to the change room to look for a pair of running shoes. At that time of day the change room was usually deserted, but as he neared the door he became aware of voices inside, and one was Foxy Hogan's.

Ray pulled up short. He had no idea of eavesdropping, but he did not want to run into Hogan. Life was bad enough without his sneers.

Yet he could not help hearing what Hogan said.

"I tell you you've got to do it," exclaimed Foxy harshly. "You can go for the run with the rest and dodge into Harmon's place. Here's the money."

"But it's an awful risk," came the reply in Ferguson's whine. "And if I'm caught I shall be sacked."

"Don't be an ass. You won't be caught. Here, take the five shillings and tell him to put it on Ducat for the second race."

Ray turned and slipped away. He knew enough to realise what was up. Harmon was the proprietor of a shop at the cross-road near Ashington, a place of resort of racing men and, of course, out of bounds for any schoolboy.

His lips curled as he walked back toward the dining-hall. Already he had suspected that Hogan and his friends did a certain amount of betting, but the idea of forcing the wretched Ferguson to take their risks made him rather sick.

During dinner he kept thinking about it; but, after all, he could do nothing; and afterwards, in the hurry of changing, he forgot all about it. Two dormitories besides B had been ordered out for a run, and there was a bigish crowd at the gates.

Searle spotted Ray. "You hurry up, Cartwright," he said. "You've got to do a bit better than you did in the school run last week."

"I'll try," replied Ray quietly.

Try he did, but the going was very bad indeed, and a couple of miles out, crossing a big field, he got into some clay so deep and sticky that he pulled one of his shoes clean off, and, of course, got his foot coated with mud.

It was a job to scrape it off and get the shoe on again, and then, to make matters worse, he found a nail had worked through the sole and was hurting his foot badly. He hobbled out of the field into a lane, reached a stile, and sat down to take the shoe off again.

He banged the nail flat with a stone, but by the time he had repaired the damage he was alone. All the other boys were quite out of sight.

He jogged on down the steep, winding lane, but he was in country that he did not know, and presently had to own that he was lost. He had not the faintest idea where he was, which way the other boys had gone, or even in which direction the school lay.

His first idea was to climb out of the lane, but then he saw a turning a little way ahead. This led down a steep slope, and all of a sudden he saw the river, the Var, swirling through the water-meadows quite close below. A glint of pale sunlight fell on the stream, showing the eddies that curled on its swollen surface.

Ray knew where he was now. There was a bridge a mile higher up, and it was the bridge that his lot would cross by on their way home. If he hurried he might catch them up.

He began to run again. A long point of wood cut off sight of the bridge until he was quite close to it, and when at last he rounded it he got a shock. The bridge was broken. The big floods of the past few days had washed away the central span, and a big gap yawned in its place. There was no crossing that way.

CHAPTER 34

The Boy in the Boat

THE question was, which way to go?

There was another bridge farther up, but how far Ray did not know. Nor did he know whether the other fellows had gone round by it, or whether they had turned back toward the main road bridge by which they had come.

While he hesitated he saw something which made him cry out. A boat was coming down the river. It had just swung round the bend a couple of hundred yards above the bridge. It was right in the centre of the flooded stream and travelling pretty fast.

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No wonder, for it was under no sort of control. Its one occupant had apparently lost his oars, and the boat spun in the eddies like a bit of drift-wood.

The person in it was a boy, a boy in shorts and a striped jersey. The stripes were mauve and white, the colours of C dormitory.

Ray did not waste any more time watching, but started running for all he was worth toward the bridge. As he reached it the boat was still fifty yards above it, and the boy in it shouted wildly for help.

"Why—why, it's Ferguson!" gasped Ray, and reached the gap in about three jumps.

"Help!" cried Ferguson wildly. "Help! I've lost my oars!"

"Paddle with your hands! Swing her round to this buttress!" cried Ray.

But Ferguson had completely lost his head, and Ray saw that he would be carried straight through the gap, where the full force of the swollen river roared sullenly.

For the moment he was at his wits' end. He did not know what to do. If he had had a boat-hook or a pole he might have thrust it out for Ferguson to catch, but there was nothing of the sort within reach.

Then Ray spotted the fact that, though the centre arch had gone, the rail was still in place. It was an iron rail and looked solid, but, even so, if he had had time to think, he would never have trusted himself on it.

But there was no time for anything, for the boat was almost in the gap, and on the spur of the moment Ray swung himself out along the rail, hand over hand.

It sagged ominously. He heard it creaking, cracking. His feet dangled less than a yard above the steel-grey surface of the cold flood. Then, almost before he had time to be frightened, there was the boat underneath him.

Instinctively he let go and dropped straight into it. Luckily he fell straight, or he would most certainly have upset it. As it was, the water splashed over the gunwale and the boat swerved.

The force of his fall had knocked the wind out of Ray, but he was up again almost at once. Ferguson, cowering in the stern with grey face, stared at him terrified.

"What did you do that for?" he asked hoarsely.

Ray laughed recklessly.

"Might ask you the same question," he retorted. "What are you doing in this boat?"

"I—I—someone chased me!" he stammered. "I bagged the boat because it was the only chance of getting away from him!"

"You've been to Harmon's," said Ray.

Ferguson's jaw dropped.

"What do you know about it?" he gasped.

"More than you think perhaps," retorted Ray grimly. "But never mind about that now. Our job is to get ashore."

"We can't! I caught a crab and broke one oar, and dropped the other."

"Isn't there a bottom board or anything that we could use to steer her?"

"There's nothing," said Ferguson dully. "And there's nothing to stop us between here and the sea."

"Nonsense!" retorted Ray. "There's the bridge at Charminster. Someone is sure to see us there and throw us a rope or something."

"If they don't, we're done for!" said Ferguson.

"Oh, don't be so gloomy!" snapped Ray. "We'll get out of this somehow or other."

But the river was growing broader all the time, and in his heart Ray knew only too well that if they did not get stopped at Charminster Bridge there was nothing between them and the broad estuary a few miles below.

TO BE CONTINUED

Five-Minute Story

Independent Eileen

"MOTHER said I'd better see you home," said Percy. "You'll only lose your way across the swamps."

Eileen's chin went up into the air proudly.

"Of course I know my way!" she retorted. "I'm not a baby. Good-night." And the gate clanged to.

Percy frowned.

"It's ten to one she will lose her way in this fog," he muttered.

Turning, he ran back into the house. It was no use taking too much notice of Eileen's independence. Why, without his lantern he rather doubted whether he could have found his own way! So down the steps he hurried and out into the lane.

Eileen was a month older than he was, hence her indignation at being taken care of by a junior.

"Not much catch going after her like this," grumbled Percy to himself. "She's sure to want to bite my nose off when I catch her up."

But somehow he didn't like to go home. The fog was quite dense in parts, and it was always worse round the swamps.

"Eileen!" he shouted. "Eileen!"

No answer.

Yet he pushed on. He had reached the marshes now, and had to go slower. Whew! In spite of the lantern he carried he had almost slipped into the oozing slime that time. If Eileen had come this short cut she was mad. The mist was like a curtain. Really anxious, he halted and yelled "Eileen!"

Was that an answering cry?

Percy plunged to the right, and soon floundered among rushes. Then to the left.

Hullo! He had stumbled once more, and, as he lay panting, his left hand came in contact with something soft. Hair! Eileen's hair?

Percy was on his knees at once. Gripping his lantern, he thrust it forward, and heard a faint, moaning cry—

"Percy!"

It was Eileen. She had slipped from the path in the mist and sunk to her knees in the ooze, and had exhausted herself in vain cries for help.

With strong, eager arms Percy dragged her out of that awful prison. She was free!

Very carefully, very tenderly, he led her down the swampy slope and across toward Manton Holme, where Aunt Effie would be growing anxious.

"Poor old Eileen!" he said once. But Eileen could only sob and cling to him. All her independence had gone.

"And I don't think it will ever come back again," she told him next day when he called to ask her how she was. "Oh, Percy, you saved my life! It was so splendid of you to come after I'd been such a duffer."

"You weren't a duffer," retorted Percy, "only independent. I like it!"



The Heart's Mirth Makes a Cheerful Face



D! MERRYMAN

A LITTLE girl who had brought home her first school report burst into tears when she gave it to her father.

"Daddie," she sobbed, "I've got no marks at all for three things." And when Daddie had consoled her he looked at the report. The last three items were: Late, 0; Absent, 0; Misbehaviour, 0.

Buried Towns

IN each of the following sentences are hidden the names of two towns in the British Isles:

You will do very well if you ride all the way.

Please, Mabel, fasten the door from eight to ten.

The open door made the wind so rough that it was hard to read in George's room.

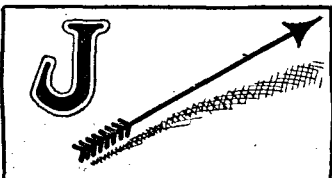
What are they? Solutions next week

Epitaph on Silent Arabella

HERE rests, in silent clay,
Miss Arabella Young,
Who on the 21st of May
Began to hold her tongue.

WHEN is a pie like a great English poet? When it is Browning.

Do You Live Here?



What town does this picture represent? Solution next week

WHY is an adjective like a baby? Because it cannot stand alone.

Is Your Name Turnbull?

TURNBULL, Trumbull, and Trumble are all really the same name, the first spelling being the original. There is no doubt it was first given as a description of some famous feat of strength, in which a very muscular man took a bull by the horns and stopped it or turned it from its course. Eventually he and his descendants received the descriptive title as a surname.



The Escapades of Johnny Crook

SAID Johnny Crook to Mr. Bat, "I'd really like to glide. I think I'll make some wings like yours, Then through the air I'll ride." With paper, glue, and lengths of wood

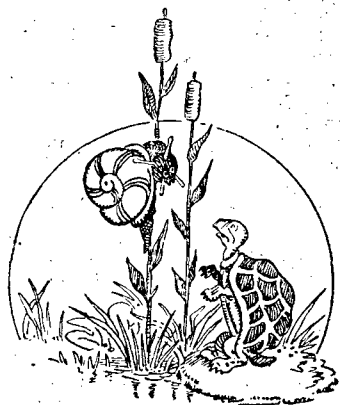
Some wings our Johnny made, But when he got upon the cliffs To start he was afraid.

"Why don't you glide?" said Mr. Bat,

So off the cliff he jumped: He spun around quite twenty times, Then on the beach he bumped.

WHICH is the heavier, the full or the new moon?
The new moon, because the full moon is a great deal lighter.

The Great Rush



THE Snail said, "Let us race!" And smiled a smile most sly. "Absurd!" the Tortoise cried; "You're slower far than I."

But when his friend replied He flushed an angry flush. He found the Snail proposed To race him up a rush!

A Sound Calculation

A SMALL boy, while gazing in the window of a sweet-shop, saw the notice, "Five sugar-sticks for fourpence."

He at once entered, and said to the shopkeeper:

"Five sugar-sticks for fourpence, four sticks for threepence, three sticks for twopence, two sticks for one penny, one stick for nothing. I'll have one stick, please."

Unfortunately for the boy the shopkeeper could not follow this business-like reasoning.

What Am I?

MY first is in hollow, but not in vale;

My second's in trouble, but not in wail;

My third is in summer, but not in spring;

My fourth is in see-saw, but not in swing;

My whole is a place that the soldier brave

Would fight to the death in order to save.

WHY is an encyclopedia affectionate?

Because it embraces everything.

The Tease

OUR schoolroom clock is such a tease,

For clocks can tease I've often found.

It never, never tries to please,

But plans out tricks as it goes round.

For always when I've sums to do

It tries its hardest to be slow,

Because I've watched, and noticed, too,

That then it scarcely seems to go!

But when I'm having heaps of fun,

And do not want to go to bed,

It doesn't creep as it has done;

Its hands go racing round instead!

ANSWERS TO LAST WEEK'S PUZZLES

Can You Read These?

I see you are too wise to eat too much for tea.

Take care before you seize bees. If your enemy sees you run before you are caught.

What Is It? Nothing.

Do You Live Here? Wigan

Who Was He? The kind professor was Adam Smith

Jacko Turns Tailor

JACKO was still thinking of finding a trade when one day he saw this card in a tailor's shop window:

APPRENTICES WANTED—APPLY WITHIN

Jacko thought, "Well, I'll do it, though I would much rather be an engine-driver."

So next day he played truant from school and applied for the work.

The tailor took a fancy to him, for Jacko could behave very well when he liked; and for once Jacko liked. Soon Jacko was sitting cross-legged by another apprentice, who good-naturedly showed him how to sew.

By and by a stout old gentleman came in to try on a suit.

"It's disgraceful!" he exclaimed as soon as he saw himself in the glass. "Why, a child could have cut it better! It makes me look a regular tub!"

Jacko, forgetting that he was on his best behaviour, burst out laughing. He had no idea that he could be seen in the mirror.

"Ha!" cried the customer, wheeling round. "What are you grinning at, you young jackanapes? I see no reason to grin, and perhaps you'll soon see reason to cry."

The tailor was as indignant as the old gentleman. "Take no notice of the boy, Major," he said. "I can soon make the coat right. It only wants letting out a little. You shall have it home tonight."

When Jacko thought that they were both too busy to notice he began to puff himself out and imitate the Major looking at his own reflection.

The other apprentice giggled.

They were having a lively time when suddenly the Major sprang round and gave Jacko a swinging box on the ear.

Jacko roared like a bull, and his master sent him out of the shop. While the customer was there the tailor seemed to be very angry with Jacko, but he did not say much afterwards—the Major had been very rude about his coat.

But Jacko's ear was tender all the afternoon, and his mind bubbled with temper like a kettle on the boil.



Jacko puffed himself out

That night there were one or two parcels to be delivered, and it fell to Jacko to take the Major's suit to his house.

When the old gentleman tried it on there was a terrible scene. He screamed as if he were being killed.

In rushed his wife, to find him with his eyes starting out of his head and his hands dripping with some horrid black stuff.

In one pocket he had found a bunch of thistles, in another a pudding of boot polish, a third contained tin-tacks, and a fourth housed a family of juicy earthworms.

Somehow Jacko did not return to the tailor's shop. He thought it wiser to look for another job.

The paragraph on the right is a French translation of the paragraph on the left

The New Piano

The latest invention in the musical world is a tiny piano-forte; one might almost call it a foot-piano, for it is designed with its keyboard close to the ground and has pedals instead of keys, so that the musician can play an accompaniment with his feet to the fiddle or other instrument which he holds in his hands.

The foot-piano is as convenient to take about as a fiddle, being under three feet in height, two feet wide, and three inches deep. It has nine 'treble' and nine 'bass' notes, which can be varied to nine different keys by means of a simple device.

Le Nouveau Piano

La dernière invention dans le monde de la musique est un tout petit piano, un piano à pied pour ainsi dire, car il est fabriqué de telle façon que le clavier se trouve près du sol, avec des pédales au lieu de touches de sorte que le musicien peut s'accompagner lui-même avec les pieds tandis qu'il joue du violon ou de n'importe quel autre instrument avec les mains.

Le piano à pied peut se transporter aussi facilement qu'un violon, car il n'a que trois pieds de haut, deux pieds de large, et trois pouces d'épaisseur. Il a neuf notes de dessus et neuf notes de basse, qu'un simple procédé permet de changer en neuf clefs différentes.

Tales Before Bedtime

The Tortoise

RONNIE was nearly in tears. He had lost his tortoise.

It was a mystery where it could have gone. Only last night Ronnie had seen it creeping slowly across the lawn—so slowly, in fact, that it was quite certain it couldn't get very far in one night. But the next morning it was nowhere to be seen.

It wasn't a very big garden, but there were lots of places where a tortoise could hide. Ronnie looked under bushes and plants, and peered into every corner of the greenhouse. He even looked in Rover's kennel.

Then he began to wonder if the tortoise had got out into the road; but when he ran out Nurse saw him from a window and called him back. And it was no good trying to explain anything to Nurse when she was angry.

The only thing to do was to have another hunt in the garden, but this time he didn't get very far.

"Just you come off my flower-beds, Master Ronnie!" called out old James, the gardener. "What's the good of my doing anything, I'd like to know? Look how you're treading down my plants!"

It was really more than Ronnie could stand. He sat down on a large stone, the very picture of misery.

But James's bark was much worse than his bite, and the next minute he came up to know what was the matter.

"You're not like yourself this morning, Master Ronnie," he said. "What's come over you?"

Ronnie winked back a tear. "I've lost my tortoise," he said.

"Is that all?" said James. He took Ronnie by the hand



Ronnie looked under the bushes

and led him down to the bottom of the garden. There was a big heap of leaves up against the wall, and James bent down and gently brushed away a few at the bottom.

"Here, Master Ronnie," he whispered.

And there, sure enough, snugly tucked away in the leaves, was Ronnie's tortoise.

"Oh, James!" cried Ronnie.

"How did you know?"

James looked wise. "I know their little ways," he said. "Now, don't you go and disturb him—he's gone to sleep for the winter and won't wake up again till next spring."

The Children's Newspaper grew out of My Magazine, the monthly the whole world loves. My Magazine grew out of the Children's Encyclopedia, the greatest book for children in the world.

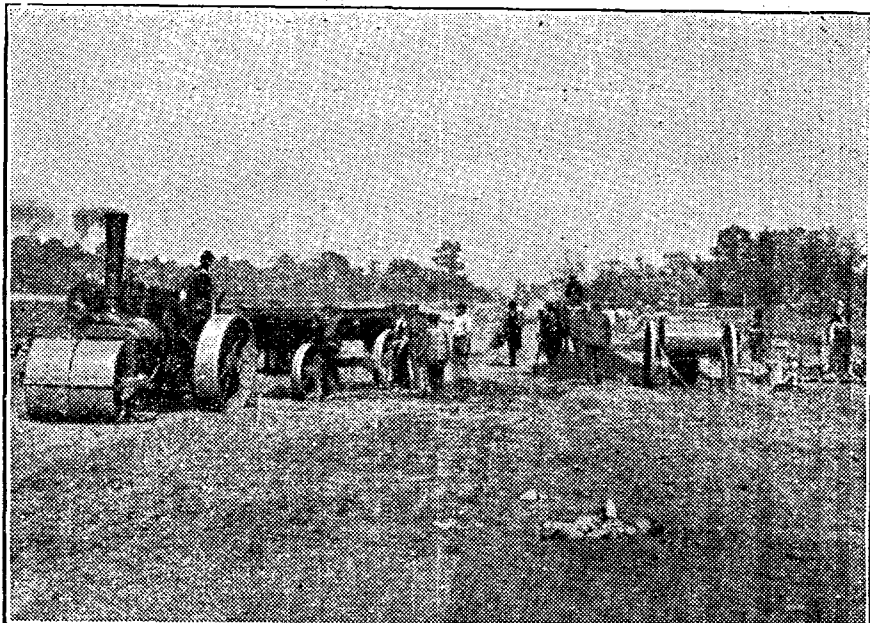
CHILDREN'S NEWSPAPER

November 18, 1922

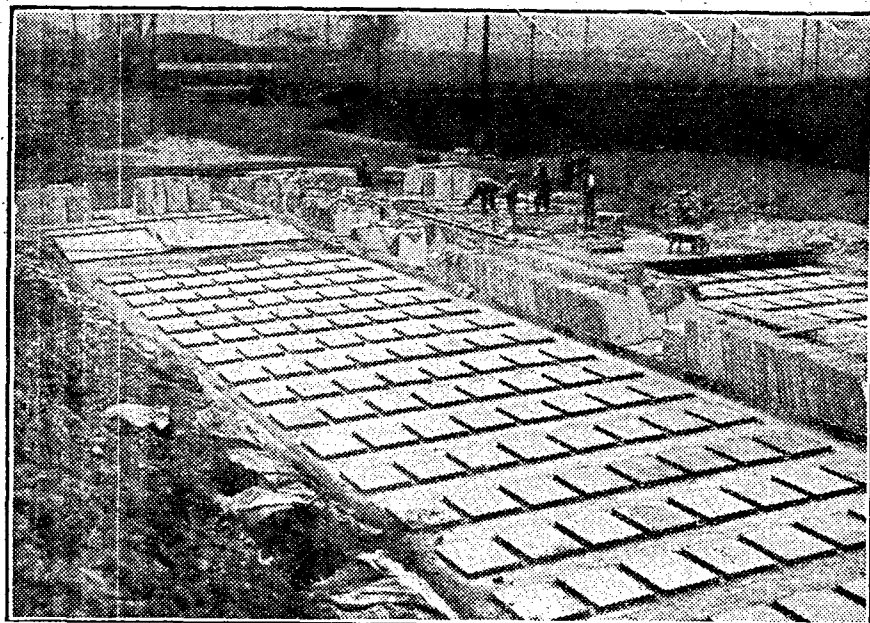
Every Thursday, 2d.

The C.N. is posted anywhere abroad for 11s. a year; inland, 13s. My Magazine, published on the 15th of each month, is posted abroad for 14s.; Canada, 13s. 6d.; British Isles, 14s. 6d. See below.

MAKING THE NEW ROADS · GOAT FARM NEAR LONDON · STRANGE OWLS MEET



Making the Great West Road out of London—Not for many years has there been so much road-making in England as there is today. Here we see a section of the splendid new West Road out of London being constructed just north of Brentford. It costs £100,000 a mile



Manchester's New Road—It is not only out of London that fine new roads are being built. This picture shows part of Manchester's new road, running between Blackley and Moston, in course of construction. It is being made of concrete and has a 25-feet span from side to side



A Little Dog Goes to the Doctor—A new clinic for dogs has just been opened at Brixton, London, and this tiny Pekingese was one of the first of the patients to be treated



The Two Owls Meet—The pagoda owl presented to the Prince of Wales during his recent Eastern tour has gone to stay in the London Zoo for the winter, and is here seen on the right looking very suspiciously at the spectacled owl from South America, with which he shares house. The photograph was taken when the two birds were first introduced to one another



A Poet's Grandchildren—Miss Jean Field and Master Robert Field, who unveiled the monument to their grandfather, Eugene Field, as described in last week's C.N.



Goat Farm Near London—Mrs. Rutter, of Mitcham, near London, who has won prizes with her goats, conducts a goat farm, and is here seen with her animals at feeding time



A Market in the Street—Cattle waiting to be sold at the fair at Bampton, in the Exmoor country. Here sheep, cattle, and ponies stand in the street waiting for purchasers

ALL THE WORLD LOVES THE C.N. MONTHLY. ASK FOR MY MAGAZINE. EDITED BY ARTHUR MEE

The Children's Newspaper is printed and published every Thursday by the proprietors, the Amalgamated Press (1922), Ltd., The Fleetway House, Farringdon St., London, E.C. 4. It is registered as a newspaper and for transmission by Canadian Post. It can be ordered (with My Magazine) from these agents: Canada, Imperial News Company; Australasia, Gordon and Gotch; South Africa, Central News Agency; India, A. H. Wheeler and Co. N.Y.